

CHOICE

www.choice.com.au

**... and then
there was
chocolate!**

**Finding
the sublime
taste**

**Echinacea,
gingko biloba,
St John's wort:
are you wasting
your money on herbal
supplements?**

MORE TESTS: • 500 L fridges • Clothes dryers
• Fan heaters • Bicycle helmets • Blenders • GPS units

You only want me for my ... er ... money



Jane Mackenzie

'Relationship marketing' is a term you hear quite often these days. Companies seem to think it's a sophisticated response to consumers who are jaded with the usual marketing tools like special offers and 'new, improved' products or services. They try to convince you — via newsletters, personalised mail and the like — that you have a special relationship with the organisation and that's a good reason to keep handing your money over.

It's garbage, of course. The only relationship you have with a company whose reason-for-being is to make a profit for its owners or shareholders is one of buy and sell. There may be honourable exceptions to this: for example, the corner store that gets things in especially for you, in return for which you often shop there instead of the supermarket down the road. But in general, forget anything approaching a meaningful two-way relationship with a profit-making organisation.

Relationship marketing is a direct parallel to being flattered and pampered and taken out to dinner and then discovering they only wanted you for your body.

We're also concerned here at CHOICE because this marketing of spurious relationships isn't just another attempt to rip off consumers. It's also a rip-off of the genuine relationship we and other not-for-profit organisations have with our members.

As we often point out, CHOICE and consumers give each other mutual benefits. We check out products and services for you and represent your interests in the broad marketplace. You keep us informed about what's going on out there day-to-day: scams, problems, new sales tactics and so on. You also tell us what you'd like us to test, help us trial products and fill in surveys about services so that we can pass this information on to all consumers.

We don't want anyone to fall for the selling of 'relationships' thought up by marketing 'gurus'. See them for what they are: just another tactic to get you to give them your money.

And thanks again for all the effort you put into keeping CHOICE up-to-date and relevant for all consumers.

Jane Mackenzie, Editor

Your letters

We welcome the letters you send us — please always include a daytime telephone number so we can contact you quickly if we want to follow up your letter. We're sorry we can't personally answer every letter we receive, but we do use them in our research. Thanks for taking the time to keep in touch.

Write to us at CHOICE, 57 Carrington Road, Marrickville 2204.

Phone us on (02) 9577 3399.

Fax us on (02) 9577 3355.

email us at ausconsumer@choice.com.au

World Wide Web address: www.choice.com.au

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Cover photo: Kent Mears

(with acknowledgments to Michelangelo for the original concept)

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Will a satellite-guided navigation system in your car mean you can throw out your street directory? Find out on page 26.

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Or at least governments and research institutions and quite likely a variety of other people can if a bill before federal Parliament is passed. Meanwhile, *you* still won't have access to your private-sector records.

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Echinacea, St John's wort, ginkgo biloba, ginseng ... these are just some of the popular herbal supplements making their marketers millions. Are any of them really worth taking?



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You have to wear one and they do save lives, so how do you find the right one for you?

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GPS — the global positioning system — is already popular with bushwalkers and sailors for making it easier to find their way from place to place. But all handheld models aren't equal.



Crushed ice can be a very important ingredient — can all blenders produce it? See page 28.

Freeze! But will your freezer do that without making your fresh food too cold? See page 35.



28 Blenders

The best blenders chop nuts and hard vegies and produce perfect crushed ice — our test sorts out the best from the rest.

35 Freeze! 470-520 L fridges

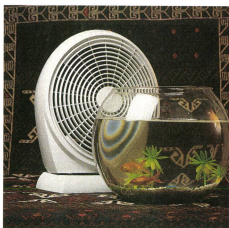
Some family-sized fridges make better use than others of sophisticated electronic controls to keep the temperatures just right in both the freezer and fresh-food compartments. Find out which in this test.

40 Clothes dryers

Do you want a dryer that automatically senses when your clothes are dry, or do you prefer to set the time yourself? You can choose from both types in this test.

44 Fan heaters

"A little box of hot air" that you can take wherever you need to keep you warm. Which fan heaters do it best?



Your subscription and the GST

The GST comes into effect on July 1, 2000, and will apply to any issues of CHOICE in your subscription period that go past this date. As a non-profit organisation we can't afford to absorb this cost and will be including it in the subscription price. So if you subscribe or renew your subscription any time between August 1999 and the end of June this year, some of the issues will attract the tax. After July 1, GST will apply to the whole subscription.

Page 49 shows the subscription prices for periods starting from the next issue, and they'll be updated every month up to July 2000. If you have any queries about this, please call CHOICE Consumer Services on (02) 9577 3399 (or see the bottom of page 2 — far left — for further contact details).

Akai goes into provisional liquidation

AKAI AUSTRALIA HAS GONE into provisional liquidation, raising concerns for consumers: will your warranties be honoured?

Meanwhile, its Hong Kong-based parent company faces an uncertain future: there are negotiations on a possible sale, and it's expected that Akai products will still be produced in the future, but nothing's finalised yet.

So is your Akai warranty still worth the paper it's written on? The current service company is working for now, but Akai can't make any promises for the future.

If you're considering buying an Akai product, make sure the store you buy it from is prepared to help you if you have problems. It's probably worth getting a guarantee in writing to avoid any doubt.

"I scream, you scream, we all scream for ice cream!"

BUT WILL WE GET IT? THAT DEPENDS on your definition of ice cream — the 'cream' may be something other than milk fat once the new food standards, published in the Australia New Zealand Food Authority's (ANZFA) latest draft of the Food Standards Code, come into force.

At present, any food product called ice cream must contain a minimum of 10% milk fat. If the new code goes through, ice cream needn't have a skerrick of real cream (milk fat) in it. Meanwhile, the minimum milk fat content for cream itself has dropped from 35% to 18%.

But not all is gloom and doom on the food front. CHOICE made a number of submissions during ANZFA's consultation process and some of these have been taken on board. ANZFA has made it compulsory for all food labels (not just foods making health claims) to list the amount of fats, sodium, energy, protein and carbohydrates, as well as providing the

Will ice cream with no cream in it make you feel ripped off?



percentage of key ingredients. So now you'll know, for example, exactly how much apricot there is in apricot jam.

Additionally, date-marking regulations have been reviewed and improved. Until now 'use by' and 'best before' have been used interchangeably, which is confusing for consumers. Under the new code, foods that should be eaten before a certain date for health or safety reasons must have a 'use by' date, while all other foods will have a 'best before' date.

We'll keep you posted with further developments. For more, see our website at www.choice.com.au/articles/a101161p1.htm or check out our Food section.

Silent nights?

ACCORDING TO A STUDY CONDUCTED by the Department of Medicine at the University of Sydney, 81% of Australian men aged between 40 and 65 are regular snorers. It's little wonder, then, that snorers and their long-suffering, sleepless partners are an attractive market for anyone offering a cure.

The latest remedy to appear in Australian pharmacies and health food shops is a chewable homeopathic tablet called SnoreStop, direct from the US, boasting clinical trials attesting to its efficacy.

SnoreStop claims to work by shrinking the swollen soft tissue that blocks air passages in the back of the throat, and by clearing mucus clogging nasal passages. It doesn't claim to be effective

for treatment of the more serious condition of sleep apnoea.

However, according to Associate Professor Ron Grunstein of the Sleep Unit at Royal Prince Alfred Hospital, Sydney, no medication yet exists that can reduce the swelling like this. "If there was a drug that cured snoring, manufacturers would be extremely wealthy, given how common it is and how many people perceive it as a problem," he says.

In Australia, an imported product claiming a therapeutic benefit must be approved by the Therapeutic Goods Administration (TGA), but as a homeopathic remedy containing active ingredients diluted more than 1000 times, SnoreStop is an 'excluded good' and not required to be on the TGA list. As long as the product won't harm you, whether it works or not is a matter of 'buyer beware'.

According to Stephen McDonald of the Australian Homeopathic Association, SnoreStop is a combination of remedies that might usually be considered individually for alleviation of allergic symptoms or adenoidal swelling that may cause snoring. "They're probably throwing a number of things at you, hoping that one will work," he says.

Can you help?

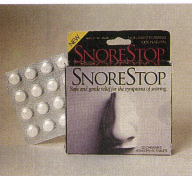
Airline satisfaction survey

HAVE YOU TRAVELLED BY PLANE IN the last five years on a major domestic or international airline? If so, we'd like to know what you thought about the service it provided.

All you have to do is fill in the airline satisfaction survey on our website: www.choice.com.au. If you can't get onto the Net but would still like to take part, call Alison on (02) 9577 3350 and she'll send you a copy of the survey.

As an added bonus, one lucky participant who completes the survey before June 2, 2000, will win a new Black Wolf Grand Teton 75 travel pack (worth \$279 and reviewed in CHOICE, October 1999).

Thanks for your help and support. We look forward to hearing from you.



Subscriber draw winners

The winners of our last three subscriber draws are as follows:

- Desley Gist of Hermit Park, Queensland, who won a dishwasher.
- Mrs M E Jones of Naremburn, NSW, who won a fax machine.
- Phillip Godden of Wamboral, NSW, who won a television.

Congratulations to all of you, and we hope you enjoy your prizes.

Correction

Kettles

CHOICE, March 2000

In this article we referred to the MOULINEX Aqualia model as A21. It's correct model number is A21.



CHOICE is one of many consumer magazines from organisations worldwide that make up Consumers International.

Get the lowdown on what's happening with your fellow consumers around the world in World Consumer Snapshot.

■ Out of signal range...

Mobile phones are so full of technically advanced features and functions these days that making a phone call is almost a side issue.

Austria's *Konsument* reports that widespread confusion has prompted adult education courses to help explain what you can do with your 'handy' (European vernacular for a mobile). They decided to check one of them out.

For around \$25 a *Konsument* employee spent two and a half hours with a group of people, already in a frustrated frame of mind, who paid no heed to the course program and peppered the lecturer with questions about the various different models of phone they used. Often, the lecturer was also at a loss. Unfortunately everyone left the course equally or more frustrated and confused than when they arrived.

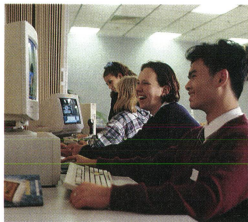
Young Australians: healthy but hurting

A REPORT CAME OUT RECENTLY FROM the Australian Institute of Health and Welfare on *Australia's Young People — Their Health and Wellbeing 1999*. The report is classic part good news, part bad news. Our 12–24-year-olds are healthy, mostly ... but that's a pretty loaded 'mostly' when you look at the rates of injury, suicide and substance abuse.

Two thirds of all deaths among 12–24-year-olds are due to injury, accidents and suicide. Suicide is particularly common among young men, and its rate rose 71% between 1979 and 1997. Mental problems such as depression feature prominently in young lives, causing both death and loss of health, and the problems are increasing.

Young Australians are also using and abusing harmful substances aplenty. Among 18–24-year-olds, as many as one in five young men and one in 10 young women are reported to abuse drugs and alcohol. A quarter of 14–19-year-olds smoke, and about 40% of 20–24-year-olds do.

The good news is that overall there have been nearly 30% fewer deaths over the past 20 years, with a 60% decline in motor vehicle accidents (although they remain a concern). There are fewer new cases of HIV and syphilis



infection (chlamydia is on the up-and-up, though). Fewer teenage girls are getting pregnant, more young people are of 'acceptable' weight, and two thirds of all 12–24-year-olds perceive their own health as 'excellent' or 'very good'. But the good news is not quite as good if you're of indigenous background, poor, unemployed, or live in a rural or remote area.

If you've got access to the Internet, you can read more about this report and discuss it on our website: www.choice.com.au/articles/a100965p1.htm.

■ Hard to swallow

A glance over CHOICE's monthly *Recalls and bans* page should be enough to convince any consumer that lapses in food product quality, even here in Australia, aren't uncommon. Thankfully, however, it's rare for the consequences of such lapses to be as dire as that recently reported in Consumers International's *World Consumer* — for both consumer and manufacturer.

A batch of rotten salami killed 20 people in Algeria last year and more than 200 others were affected by botulism. The Criminal Court considered the owner of the manufacturing company directly responsible, as he'd allowed the product on the market despite being aware that it was unfit for consumption. His penalty? A sentence of death.

■ Coke adds price

Ireland's *Consumer Choice* reports that the Coca-Cola company has been "evaluating technology" and testing a new vending machine in Japan. The clever machine automatically puts up the price of the drinks inside when the temperature rises.

Coca-Cola assured *Consumer Choice* it has no intention of putting the machine into the marketplace. So they're just testing the idea to amuse themselves?

Fantastic plastic hangover

If the thought of reading your credit card statement is enough to give you heart palpitations, you're not alone. According to Betty Weule of the NSW Credit Helpline, Australians are, per capita, the world's number one users of consumer credit.

So how can you tell if you (and your credit card) are heading for meltdown? Betty Weule offers some warning signs:

- You've more than one credit card.
- You're using one card to pay off another.
- You can't afford to pay on time.
- You're using your credit card to pay for the basics.

OK. What can you do about it, and how do you get back on top? Try these tips:

- Act quickly: the faster you approach your credit provider, the easier it is to come to an arrangement.
- Cut up all but one card so you can't use them again, and concentrate on paying them off.
- Pay off as much as you can afford — the minimum payment barely covers the interest.
- Pay off your debts one by one, starting with the smallest, because you've then got more money to pay off the next debt, and so on.
- If you're having trouble staying within your limit, don't ask for an increase — talk to your credit card provider about transferring your



debt to a personal loan, which is likely to have a lower interest rate.

- Draw up a budget — it'll help you find some money to pay off your debts and it'll make you less reliant on your credit card in the future.

A financial counsellor can help you work through these problems and set up strategies for clearing your debt. Just call a Credit Helpline: 1800 808 488 in NSW, and (03) 9602 3800 or 1800 803 800 (for country callers) in Victoria. If you're in another state, these services may be able to find a counsellor close to you.



Over 100,000 Australians have lost their money in fraudulent and illegal investments in the last 10 years. Here we review the latest investment news from the Australian Securities and Investments Commission (ASIC) and give you tips on how to avoid investment pitfalls. For further information call the ASIC infoline on 1300 300 630 or check its website on www.asic.gov.au.

Dr Ezenwa asks for help

The 'Nigeria scam' has been around for a long time, and not just in Australia. According to our German counterparts, in a letter from a Dr Ezenwa, a German consumer was promised a 30% share for helping to transfer illegal funds of US\$33 million overseas.

Dr Ezenwa said he was able to put the funds aside by overcharging contracts on behalf of the Nigerian National Petroleum Corporation. He now only needed bank account details to transfer the money to the German consumer.

Recently the Australian Securities and Investments Commission (ASIC) warned about an email with a very similar request sent by a Sir Marthins like.

The Nigeria connection

In the last decade the 'Nigeria connection' has swindled people worldwide out of an estimated US\$5 billion.

In late 1998 Australia Post confiscated about 1.8 million scam letters with fake stamps — in Sydney alone. But not only are the stamps fake: the name and title of the sender are usually false too.

If you fall for the promise of easy money, you can quickly lose tens or even hundreds of thousands of dollars. As the months go by, you're asked to pay for a number of advance fees and expenses, such as:

- Legal costs.
- Application fees.
- Business travel expenses.
- Bribes.

Falsified account statements and counterfeit letters from the Nigerian Central Bank and other government offices are used to lure you. As long as you keep paying, they'll contact you again and again. As soon as you stop paying you won't hear from them — or your money — ever again.

Recently, small businesses have also been targeted. A German computer retailer delivered computers to Nigerian customers who'd deposited a cheque at a US bank. However, the sting is that US banks allow customers to cancel cheques up to four weeks after they've been deposited. And — surprise — as soon as the computers were delivered, the cheque was cancelled and no payment or further contact was received.

CHOICE advice

If you receive a letter similar to these examples:

- Notify the ASIC infoline (see above left).
- Tear the letter up, so no-one else can find it and be taken in.

Attempts to get your money back are usually fruitless, and sometimes fatal: the Australian Institute of Criminology reports that some victims of the scam were killed while attempting to recover their funds in Nigeria.

For more information on the Nigeria connection, check a recent report published by the Australian Institute of Criminology. You can get it free on its website (www.aic.gov.au/publications/tandi/tandi121.html) or order it for \$5 by phoning (02) 6260 9221.

● YOURletters

Two useful additions to our report on air conditioners last spring.

Do it yourself

I recently purchased a small split-system air conditioner (1.5 hp) for my home. I knew I'd need some assistance installing the unit but, being a handyman, I managed to perform all the installation except for connecting the copper cooling pipes between the inside and outside unit (the pipes must be flared and air purged out of them).

I knew a full installation would cost \$500-\$700, but was shocked to find out that every air-conditioning contractor I contacted was unwilling to perform half an hour's work (they all admitted it would take this long) for under \$300. Most of them couldn't comprehend I had actually mounted the unit on the wall myself, and flatly refused to come out for under \$500.

Some tried to convince me I needed electrical work done, even though it's a small 1.5 hp unit and comes with a normal electrical plug fitted. Some said I needed extra coolant gas, even though the unit comes with extra gas for air purging. One informed me most of the cost was for copper pipe — \$200! (I went to a plumbing shop and bought it for \$18.) And another offered to do the work for \$200 — but the copper pipe would still cost \$50.

I explained what I wanted very clearly but they made the whole operation sound like a mission to the moon was needed.

If you ever read the installation manual, you'd agree the installation is very simple. I was even told in the store where I bought the unit

that most of the installation could be done by the average handyman, but the copper pipe would best be done by a plumber if I didn't have a flaring tool.

Stories such as the \$200 copper pipe, extra materials that aren't needed and work that doesn't need to be done could catch out the less technically minded very easily. I may go into business myself!

Jason Ayres
Via Internet

Jason eventually got the copper cooling pipes connected — for \$120 — through a large company that installs industrial air conditioners. He's satisfied with the job and has recommended the company to friends who need similar work.

Get a professional

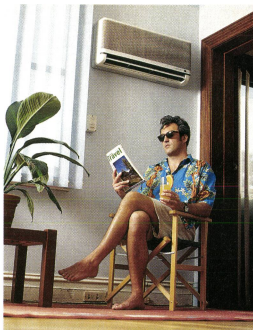
I'm writing regarding your article *Staying cool this summer* in the October 1999 issue of CHOICE, and would like to add some information your readers should know before they buy.

■ Some licensed air-conditioning contractors don't install plant they haven't purchased themselves.

■ Customers may be better off buying from licensed contractors. If they're the manufacturer's preferred contractors, they could buy 10-15% cheaper.

■ Many municipal council regulations require an application to be lodged before any outdoor air-conditioning condensing unit is installed.

■ A house older than 25 years may not be able to support an additional 15-amp circuit, if it's all-electric, and could require additional work by a licensed electrician. This could cost about \$250 for running a 10 m circuit from the switchboard to a weatherproof isolating switch, including a circuit breaker. If the premises are up to the maximum electrical loading, it could also involve upgrading the consumer mains and the switchboard, which could cost up to \$1500.



■ Reverse-cycle air conditioners produce condensation that has to go somewhere. In summer, the condensation from the indoor fan coil unit can be a problem if the unit is mounted on an indoor wall. And in winter, condensation can drip from the outdoor heat-pump condensing unit, which may cause problems if it's wall-mounted over a pathway.

■ Both the suction and liquid copper refrigerant lines of heat-pump units must be insulated. These lines should also be encased in a cover duct; otherwise the insulation material can deteriorate rapidly in the weather.

I thought people should know these points before they rush out and buy a piece of equipment they may not be able to use.

Most reputable licensed contractors won't charge for a quote, and if they have faith in their ability, they should guarantee their workmanship for five years, just as most manufacturers guarantee their equipment for five years.

David Williams
Tempguard Air Conditioning
Dulwich Hill, NSW

LETTER OF THE MONTH



We want to hear from you — your experiences help our research and often let other readers know about scams and rip-offs. To thank you for writing to us, *Your Letters* awards a prize of a CHOICE book to the 'Letter of the month'. This month's winner, Jason Ayres, receives *Ethical Investment* (second edition), or any other book of his choice from *Consumer Bookshelf* (page 32).

We're sorry we don't have the resources to answer all your letters personally, and in the magazine we may edit them or print only an extract. See page 2 for how to reach us.

Food of the gods?

Do you think CHOICE had difficulty finding willing participants for a chocolate taste test? Not likely!



IN BRIEF

■ Good chocolate doesn't necessarily cost more: our tasters found less expensive local brands such as CADBURY and DOVE compared favourably with some of the pricier brands.

■ The trial included one 'lite' chocolate, with about three quarters of the calories of conventional chocolate. It didn't measure up — the trialists placed it bottom. And a chocolate made with fructose instead of sucrose came second-last. It might be easier to train yourself to eat less of the real thing than to search for a substitute.

IT'S HARD TO THINK OF ANYTHING with an appeal as powerful and universal as chocolate. Something lifts it beyond mere food to an other-worldly, revered plane. "You can take the sex and the fine wine," says the chocoholic, "but keep your hands off my chocolate!"

Mind you, this reverence is given only to the very best chocolate. You don't have to be a connoisseur to discern ordinary chocolate from heaven in a wrapper.

What makes good chocolate?

The quality of chocolate depends on the standard of the cocoa beans it's made from and also the way it's made. The journey from bean to block is long, and various steps along the way influence the quality of the finished product.

The roasted 'nibs' (the centre of the fermented and roasted cocoa bean) are ground into a coarse paste. Known as 'chocolate liquor', this is the essential ingredient of chocolate. Further milling and carefully controlled temperature and pressure treatment smooth and refine the liquor before it's blended with the ingredients used to make the different types of chocolate. Milk chocolate is made by adding sugar, dried milk, extra cocoa butter and flavourings to the liquor, while dark chocolate has a higher proportion of cocoa solids.

After blending, the mixture is further refined, including a process called 'conching', a kneading process that further develops flavours and reduces the size of the solid particles. The length of the

conching process determines the ultimate smoothness of the finished product, with good chocolate often conched for several days compared to as little as 12 hours for lesser products.

Once it hits your mouth, the best chocolate is smooth, doesn't cling to your palate or feel gritty on your tongue, and will melt slowly. Beyond that wonderful texture, we're all looking for a distinctive taste, the nature of which depends on the type of chocolate you're after.

Tasting for Australia

In this test we tasted milk chocolate, which, whatever purists might say, is by far the most popular variety, with 85% of the market. Apart from the milk, we kept it pure, buying blocks with no additions such as nuts, fruit or cream fillings. To see if you can satisfactorily replace the real thing, we also included CADBURY LITE (which is a lower-calorie, artificially sweetened, reduced-sugar product) and HOLEX VOLL MILCH, which is made with fructose instead of sucrose (ordinary sugar). This might be meant to appeal to the old idea that if you have diabetes, all you have to worry about in your diet is sugar. Not so — see *Chocolate and diabetes*, far right.

All in the name of science, our tasters checked out 12 brands of block milk chocolate, after undergoing training to familiarise them with terminology and recognise characteristics such as 'bitterness' and 'coarseness of melt'. Before the blind tasting, the trialists also tasted two reference chocolates not in-

SHOCK! HORROR! — Chocolate shortage!

Two years ago chocolate lovers were horrified by reports of a pending chocolate shortage.

Manufacturers had met in Panama to discuss ways of averting a projected shortfall in cocoa production in the wake of a poor season. The vulnerability to pests and plant diseases of the cocoa tree, which can only grow in tropical regions within 20 degrees of the equator, and the failure of cocoa production to keep up with growth in consumption, added to concerns. Predictions of a serious shortage within 10 years were widely reported.

While it might not be time to hoard your favourite chocolate bars just yet, the problem certainly hasn't gone away. According to the International Cocoa Organisation,

weather-induced declines in 1997–98 were followed by a partial recovery, so supply seems relatively secure in the short to medium term. However, demand still outweighs supply. In 1998–99, the world stocks of cocoa beans stood at only 42% of annual grindings.

The Confectionery Manufacturers of Australasia told CHOICE that efforts are being made to develop disease-resistant plants, and the plant is being grown in different regions in the hope of increasing production. In Australia, for example, the Federal Government and the departments of agriculture in Queensland, the NT and WA have teamed up with Cadbury-Schweppes to fund trial plantations in Broome, Darwin and Innesfail.

Chocolate and diabetes

Our trialists didn't like HOLEX Vollmilch and, according to Diabetes Australia, substituting fructose for sucrose is pretty much irrelevant for diabetics. Fat content (which is as high in the 'alternative' chocolates as it is in the normal blocks) is the primary concern, so Diabetes Australia recommends small amounts of the real thing. Good news for choc lovers with diabetes!

cluded in the test — one very good-quality chocolate and another made to much lower specifications — in order to give them some parameters to judge by.

The final score for each tested chocolate consisted of texture (50%) and flavour (50%). The overall score is given in each profile (see pages 10–11).

Best blocks

While LINDT, manufactured in France by the famous Swiss company, was rated best, the news wasn't all bad for the local brands: CADBURY DAIRY MILK rated as highly as imports like Switzerland's CAILLER and Germany's MILKA ALPINE.

Is chocolate bad for you?

Something as wickedly delicious as chocolate couldn't possibly be good for you — or so accepted wisdom would have us believe. It'll make you fat, the spoilsports say; it'll give you pimples and rot your teeth.

Well... overindulgence may not be a healthy pastime (the cocoa butter in chocolate does contain saturated fat, which can increase blood cholesterol and contribute to heart disease). However, recent research suggests that chocolate contains significant levels of antioxidants, which help to protect us from cancer and heart disease (see CHOICE, June 1999, for more on this). While this may sound encouraging, unfortunately no research has yet shown that chocolate itself reduces cancer risk or heart disease.

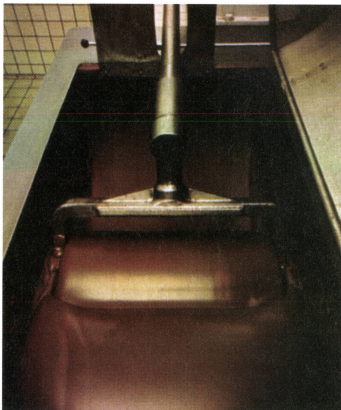
As for acne, research suggests that diet, including chocolate, has little to do with it — hormones are usually the culprit. Chocolate is also no more likely to put holes in your teeth than any other food containing sugar, especially if you're a conscientious brusher. It's even been suggested that tannins in chocolate may help prevent tooth decay.

In all, it seems you might as well just relax and enjoy your chocolate in moderation. A few pieces a day (yes, pieces — not blocks) probably won't even make you put on weight.

As CADBURY is also considerably cheaper than its imported rivals, little wonder it commands a 22.5% market share in Australia, well ahead of its competition. Price certainly doesn't automatically indicate quality, with the French import PIERRE KOENIG, by far the most expensive chocolate in the test at \$8.95 for a 100 g block, rating equally with Australia's DOVE at about \$1.33 per 100 g (both scored 60%).

Unfortunately, the news isn't good for calorie counters. CADBURY LITE finished bottom, so you're probably better off eating less of the real thing than compromising on taste. That's one thing the seasoned chocolate lover is generally loath to do.

What makes good chocolate? Time, among other things — find out more on page 8.



COURTESY OF LINDT AND SPRUNGLI

Chocolates are profiled in rank order from left to right, giving some of the characteristics identified by trialists for each brand. The prices shown are a good target to aim for when shopping around, based on price checks in February 2000.

Lindt Excellence Extra Creamy Extra Fine Milk Chocolate



Country of manufacture:

France

Target price: \$3.45 (100 g)

Approx. price per 100 g: \$3.45

Score: 70%

The texture was soft, with a very smooth melt in the mouth. It had a noticeable chocolate impact and the most noticeable creamy/milky flavour.

"Wonderful texture, very smooth and just the right thickness."

Pink Lady Superfine Milk Chocolate



Country of manufacture:

Australia

Target price: \$2.50 (100 g)

Approx. price per 100 g: \$2.50

Score: 65%

Had a smooth melt with a firm snap, though a bit thick in the mouth. It had the slowest melt of the chocolates tried. There

was also a noticeable chocolate impact. *"The tiny piece I bit off still hasn't melted."*

Nestlé Classic Full Cream Milk Chocolate



Country of manufacture:

Australia

Target price: \$2.68 (200 g)

Approx. price per 100 g: \$1.34

Score: 55%

Was considered chalky and gritty when melting in the mouth. Had a firm snap but the melt was considered a

bit thick. *"Doesn't feel good in mouth; leaves it feeling coated."*

Cadbury Dairy Milk Chocolate



Country of manufacture:

Australia

Target price: \$4.62 (400 g)

Approx. price per 100 g: \$1.16

Score: 65%

Had a very firm snap and a smooth melt, though the melt was considered a bit thick in the mouth. It had a noticeable chocolate impact, and a

creamy/milky taste along with a noticeable sweet taste. *"Nice melt over time, lasts in the mouth. A bit thick."*

Dove Milk Chocolate



Country of manufacture:

Australia

Target price: \$3.18 (240 g)

Approx. price per 100 g: \$1.33

Score: 60%

The melt was considered a bit thick in the mouth and the texture a bit chalky. There was a slight chocolate impact with

a noticeable creamy/milky flavour and sweet taste. *"Would rather chew than suck it. Not very nice in the mouth."*

Savings Milk Chocolate



Country of manufacture:

Australia

Target price: \$1.39 (200 g)

Approx. price per 100 g: \$0.70

Score: 50%

Had a reasonably soft snap; melt was a bit chalky but reasonably fast. A noticeable to intense sweet taste. *"Smells*

like Easter eggs and feels bad in the mouth — almost like putting a spoonful of peanut butter in the mouth and trying to melt it by sucking."



Cailler Swiss Milk Chocolate

Country of manufacture:

Switzerland

Target price: \$3.50 (100 g)

Approx. price per 100 g:
\$3.50

Score: 65%

Had a smooth melt in the mouth, with a noticeable chocolate impact. "A little thin but otherwise lovely. Glides over the tongue."



Milka Alpine Milk Chocolate

Country of manufacture:

Germany

Target price: \$1.49 (100 g)

Approx. price per 100 g:
\$1.49

Score: 65%

Had a smooth melt in the mouth, although it was considered a bit thin.

"Nice start, middle and finish."



Pierre Koenig Milk Chocolate

Country of manufacture:

France

Target price: \$8.95 (100 g)

Approx. price per 100 g:
\$8.95

Score: 60%

This was considered chalky and the melt in the mouth was a bit thin, though it did have a firm snap. It had a noticeable chocolate impact with a slight creamy flavour. A number of tasters said it had a "burnt taste".



Darrell Lea Real Milk Chocolate

Country of manufacture:

Australia

Target price: \$2.25 (100 g)

Approx. price per 100 g:
\$2.25

Score: 55%

The coarseness of the melt was considered a bit chalky in the mouth. It had a very firm snap.

"Really like this flavour, melt could be a little smoother."



Holax Vollmilch Milk Chocolate

Country of manufacture:

Germany

Target price: \$4.25 (100 g)

Approx. price per 100 g:
\$4.25

Score: 45%

The melt was a bit thin and chalky. There was a slight chocolate impact and it was considered only slightly creamy. Tasters also detected a slight sweet taste, bitter taste and salty taste. "The end of the melt feels OK but the rest is very gritty. Pity about the taste."



Cadbury Lite Milk Chocolate

Country of manufacture:

Australia

Target price: \$1.85 (75 g)

Approx. price per 100 g:
\$2.47

Score: 40%

The melt was considered sticky/drying by a lot of tasters and also gritty. There was a creamy/milky impact and sweetness, but only a slight chocolate impact. It was also considered slightly bitter. "Left a waxy feel in the mouth. Gritty and chalky."



Big Brother can get your medical records



IN BRIEF

■ Under a proposed bill, government agencies and research institutions (and maybe others) could have access to your private-sector medical records, while you don't.

What you can do

- If you're concerned about this issue, we'd like to hear from you in our online forum: go to www.choice.com.au/articles/a101108p1.htm.
- If you want to comment on the bill, you can fax the Hon Daryl Williams on (02) 6273 4102.
- If you want to find out more, the Health Issues Centre has produced a detailed paper, *Application of the National Principles for the Fair Handling of Personal Information to Personal Health Information*. You can download it from <http://home.vicnet.net.au/~hissues/notices.htm>.

Imagine a scenario where all your personal health information is in one database that can be accessed by third parties without your knowledge or consent. In private-sector health services, it could be on the way.

YOUR MEDICAL RECORDS COULD BECOME an open book if the Privacy Amendment (Private Sector) Bill — to be introduced into Parliament by the Federal Attorney-General in April — is passed.

The bill lumps health information in with other types of personal information. The government claims the bill safeguards this information and your privacy, but in practice it allows many exceptions to the rule.

Under certain conditions, organisations such as government agencies and research institutions will be able to access medical records held by doctors in private practice without your consent.

Information technology has a lot to answer for, in the sense that it's the advent of electronic records that's made possible these sorts of breaches of privacy.

The trend towards collating all personal health information into integrated databases is also responsible. The rationale is that, increasingly, consumers will interact with teams of medical practitioners from many disciplines — so personal health information needs to be shared and readily accessible. The downside is, how do you confine that sharing to those who have a right and ensure consumers participate in the decision as to who that is?

A cast of thousands

Giving or withholding personal health information is a matter of trust. After all, you may not mind your GP of long standing knowing that you've got chronic back problems, a sexually transmitted disease or you

drink too much; or that you've had a diagnosis of cancer and need treatment for depression. In any case, your GP is bound by doctor/patient confidentiality.

But you can't maintain the same relationship of trust with a cast of thousands. There could be legitimate reasons for government agencies or research organisations having access to this information (to better monitor disease trends, for example). But what would be the consequences if direct marketers, potential employers, your insurer or your bank could also get it? Under certain conditions, they could.

Furthermore, it's very possible all those bodies will know exactly who you are, thanks to other information technology developments such as unique consumer identification systems.

There are provisions in the bill designed to protect you against at least some of these scenarios, but the legislation is far from watertight.

You don't have access

The irony is that all these other people may have access to your medical records while you don't. Access to your own records should be a right. Australia is already backward compared to other countries — we lack common law granting all Australians right of access to their private-sector medical records. You should know what's in your records and have the opportunity to correct them if they're wrong.

And consent should be required: you should be asked for permission before your records can be accessed by anyone else, and you should know who wants them and what information will be disclosed.

On your bike

You can't just go for a snazzy design when you're buying a bike helmet — if it doesn't fit well, it won't protect you properly.

YOU MIGHT HATE IT, BUT BICYCLE riders in Australia are required by law to wear an approved helmet. After the introduction of bike helmets in the early '90s, the number of cyclists dying in road accidents has dropped considerably — from 80 to 100 a year to about 40 to 60 a year. While the number of people using a bike also went down after helmets were introduced, research to be released by the Australian Transport Safety Bureau indicates that helmets have reduced brain and head injuries by 60%.

But that's not the end of the story. In order to get the full benefit of a helmet, a number of things have to be just right:

■ **You have to wear it.** Sounds obvious, but even though it's a legal requirement, bike riders are more likely to ignore it when their helmet is uncomfortable to wear, difficult to use or they think it makes them look daggly. But it's the rider's responsibility, so it's essential you buy a helmet you'll wear — see *What to look for*, page 14, for details.

■ **The helmet has to stay in place.** If it doesn't fit properly and moves around on your head, it may obstruct your vision. And in an accident it might expose parts of your head to the impact.

While it's up to you to find a good fit (see *What to look for*), a standard test checks the strength of the helmet's strap system (see note 1, page 15).

■ **The helmet must provide adequate protection.** This is impossible to assess without testing, so look for Australian Standards-approved models, because they've complied with certain requirements. You might find models on sale that mention other standards, though — see *Which standard?*, page 15, for details.



We put 12 helmets costing from \$40 to \$60 through the most important standard tests to see if any just scraped through or offered a lot more protection. Happily, they all passed with flying colours — so you don't have to spend a fortune to get a helmet that will protect your head well. See note 1 for details of the tests.

Wearing them

Ten bike riders trialled each helmet to see which they preferred for comfort and which were the easiest to adjust and use.

If the five top-rating helmets in this test don't suit you, check the trialists' ratings for other models worth trying (in the table, page 15). Also take a look at the photos of the others to see if any take your fancy for looks (if you don't think it looks good you're less likely to wear it).

IN BRIEF

- All the tested helmets easily passed Australian Standard performance requirements (see note 1, page 15). Some were a little better than others, but none just scraped through.
- Even the best-performing helmet can be almost useless at protecting you if it doesn't fit properly (see *What to look for*, page 14). The best helmets in this test are a starting point when you're trying some on (see *Try these first*, left).

TRY THESE FIRST

ADURA Equipe	\$60
ADURA Aspire	\$40
ADURA Prelude	\$50
ROSEBANK TYRANT/TY2001	\$42
NETTI Stealth	\$50

These were the best in this test: they scored well in the standard performance tests and the trialists liked them for their comfort and ease of use. The **ADURA Equipe** and **ROSEBANK Tyrant** were also in the top-rating group in our ventilation test.

However, these are just a starting point: if they don't fit you properly or are uncomfortable, try some others.

WHAT TO LOOK FOR

Making it harder

In a number of department stores where you serve yourself, we found incomplete helmets with missing foam pads, sun visors or instructions. It's much better to go to a specialist shop where you can get advice on fitting and be sure nothing's missing from the package.

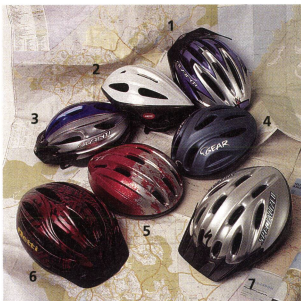
The three most important things when buying a bike helmet are: best fit, best fit and best fit.

A helmet can be rendered almost useless if it fits poorly. Take out the padding if possible, and make sure the shell fits snugly but comfortably on your head. Then use the padding wedges together with the strap system to fine-tune the fit.

The helmet should sit firmly about 1–1.5 cm above your eyebrows. You shouldn't be able to move it backwards, forwards or sideways. If you're not sure, ask the shop assistant for advice — buy where they know what they're talking about. A helmet isn't suitable as a surprise present — the person who's going to wear the helmet also has to choose it.

Take the helmet that fits best. Only if you've found several models that fit equally well, look for the following:

- Easy-to-adjust straps.
- Good visibility all round.
- Light weight.
- A bright colour or reflectors that make you more visible in the dark.
- A sun visor.
- A design you like and therefore will wear.



The rest in the test: mainly the trialists rated them lower for comfort or ease of use than the top five.

- | | |
|---------------------|--------------------------|
| 1 — Avanti Razor | 5 — Gear Enduro |
| 2 — Bell Vita Pro | 6 — Netti Lite 5 |
| 3 — Avanti Maverick | 7 — Specialized Air Wave |
| 4 — Gear Zeus Pro | |

PROFILES

The five top models in our test are profiled in rank order from left to right. They're a good starting point if you're looking for a bike helmet — but they also may be completely unsuitable for your head. Good fit is essential (see *What to look for*). So if the helmet that feels best for you comes towards the bottom of our table, don't worry. All the tested models easily passed the most important Australian standard performance requirements (see note 1, right). The trialists' ratings (in the table) are also a guide.

ADURA Equipe



Target price: \$60
Our trialists found it comfortable and easy to use overall. However, some had problems adjusting the padding wedges and straps. It rated equal second-

highest in the standard performance tests and was in the top group of helmets for ventilation. It's relatively lightweight, but doesn't come with a sun visor.

ADURA Aspire



Target price: \$40
Our trialists found it comfortable and very easy to use overall. It's the lightest helmet in the test and comes with a sun visor. Its ventilation isn't as good as some other helmets.

ADURA Prelude



Target price: \$50
Our trialists found it comfortable and easy to use overall. However, some had problems adjusting the padding wedges and straps. It rated the highest in the standard performance tests of all the tested models. It's relatively lightweight and comes with a sun visor.

ROSEBANK Tyrant/TY2001



Target price: \$42
Our trialists found it comfortable and easy to use overall. It's in the top group for ventilation, is relatively lightweight and comes with a sun visor.

NETTI Stealth



Target price: \$50
Our trialists found it comfortable and easy to use overall. It's relatively lightweight and comes with a sun visor.

Time for a new one?

In an accident, the foam in the helmet gets compressed, losing part of its cushioning properties. Some manufacturers or distributors have an accident replacement warranty, so check whether this applies to yours (and see the table, right, for the models in this test). Otherwise, throw a helmet away after an accident or any kind of abuse (for example, if it gets thrown onto a hard surface or kicked hard) — even if you can't see any damage.

Cracks, loose padding and frayed straps are also signs that it's time to get a new helmet.

Bike helmets

Brand / model (in rank order)	Manufacturer / distributor	Origin	Target price (\$)*	Warranty (years)	Measured weight (g)	Sun visor	Performance score (%)	Trialists' ratings			Overall score (%)	
								Ventilation rating	Comfort	Ease of use		
ADURA Equipe	Helmet Research	NZ	60	1	241	✓	75	★★★	Good	Good	77	
ADURA Aspire	Helmet Research	NZ	40	1	220	✓	71	★	Good	Very good	76	
ADURA Prelude	Helmet Research	NZ	50	1	250	✓	76	★★	Good	Good	75	
ROSEBANK TyrantTY2001 (A)	Rosebank Products	Australia	42	1	254	✓	74	★★★	Good	Good	75	equal
NETTI Stealth	Netti Atom	Australia	50	1 (D)	249	✓	72	★★	Good	Good	73	
AVANTI Maverick	Avanti Bicycle	NZ	50	(E)	236	✓	68	★★	OK	Good	69	
BELL Vita Pro (B)	Bell Sports	US	60	ns	310		70	★★★	OK	Good	69	equal
NETTI Lite 5	Netti Atom	Australia	40	1 (D)	242	✓	69	★	Good	OK	67	
GEAR Enduro	Headstart Helmets	Australia	40	(E)	239		71	★★	OK	OK	66	
SPECIALIZED Air Wave (C)	Avanti Bicycle	NZ	60	1 (F)	251	✓	75	★★	OK	Borderline	66	equal
AVANTI Razor	Avanti Bicycle	NZ	45	(E)	290	✓	68	★	OK	Good	65	
GEAR Zeus Pro	Headstart Helmets	Australia	45	(E)	258		70	★★	Borderline	OK	62	

* Prices shown are a good target to aim for, based on nationwide checks in March 2000. ns Not stated.

(A) According to the manufacturer, this model is similar to the Rosebank Paragon, which has different colours, packaging and accessories.

(B) According to the manufacturer, this model is similar to the Bell Forza 2, which has different colours and a sun visor.

1 Performance score

Using Australian standard test methods, we tested the helmets to find out:

- How well they spread the force of an impact over a wide area of the head (load distribution). The higher the force at any particular point, the higher the risk of deforming or fracturing the skull.
- How well they cushion the rapid deceleration of the head caused by an impact (energy attenuation). The higher the deceleration force and the longer the head is exposed to it, the higher the risk of concussion.
- How well the helmet stays in place when pulled (retention system elongation test). If it moves during an accident (for example, because the straps stretch too much or break), there's a higher injury risk as parts of the head get exposed.

The helmets passed all the most important Australian standard performance requirements, but some did better than others.

2 Ventilation rating

We fitted the helmets to a head form that was regulated at body temperature (37°C), exposed them to a constant headwind, and monitored the temperature rise until it stabilised.

The results fell into three groups — the more stars, the better the helmet's ventilation.

3 Comfort / ease of use

Ten trialists assessed each helmet during a day-long cycling tour for things like:

- Fit and comfort during the ride (weight, pressure points, etc).
- Ease of adjusting the wedges and strap system. A bike helmet is a very individual item. It would take a much larger trial to give enough statistical confidence for exact percentage scores. That's why we've grouped the helmets in broader categories.

4 Overall score

The overall score is a combination of

performance, ventilation, comfort and ease of use, weighted as follows:

- Performance: 40%.
- Ventilation: 20%.
- Comfort: 20%.
- Ease of use: 20%.

As noted elsewhere, the score is only meant to be an indication of which models may be worth looking at first. Fit's the essential factor.

Which standard?

Several states and territories require bike riders to wear a helmet that meets the requirements of the Australian standard (1996 version).

However, Australian laws allow helmets onto the market that meet older, less stringent versions of the Australian standard, as well as imported helmets that meet a US standard (Snell B95).

This is an unfortunate situation. In theory, you could

buy a helmet that doesn't comply with your state's road laws. So if you got hit by a car and sued for damages, the court might find you hadn't complied with state laws and rule against you.

Also, the organisation certifying the Snell standard has no presence in Australia, so nobody's checking whether a helmet carrying its label has really been certified by it.

To be on the safe side, look for the **Australian Standards Mark** when buying a bike helmet (see photo).



Herbal supplements: *what's hype and what's herbs?*

IN BRIEF

■ There's a lot of hype about herbal supplements. It's hard to get reliable information and to know what you're really buying, so it's best not to self-prescribe. And a herbalist is likely to mix you an individual herbal tincture rather than point you at an off-the-shelf supplement.

■ There is some scientific evidence that some herbs, such as saw palmetto, echinacea, ginkgo and St John's Wort, are relatively safe and do work — but questions remain, and so do some adverse effects. ■ All herbs used as medicine are like drugs and can interact with other drugs. If you want to try a herb and are taking other drugs, discuss this with all your practitioners and keep them informed.

Herbal supplements are a healthy business for those who market them. But are they as healthy for you?

CHOICE weeds the hype from the herbs.

ALTHOUGH HERBS HAVE A LONG and well-respected healing tradition, more recently the hype about them has been growing and flourishing, particularly on the Internet. And that can be a dangerous information space for consumers, as you often don't know who's planting the information and whether they're using industrial-strength manure!

Proof versus promises

We've reviewed seven herbal supplements (see right), ranging from golden oldies to newer contenders. If you believe the marketing claims, our pick could offer you every gift. There are universal panaceas; herbs for the old and the young; herbs to speed you up and slow you down. There's a herbal Prozac (St John's Wort) and a herbal Viagra (saw palmetto); echinacea for colds and ginkgo biloba for Alzheimer's. Guarana is supposed to power you through the urban jungle and help you lose weight. Ginseng is said to overcome stress

and fatigue, while kava's speciality is to soothe you.

On the labels and in the marketing information, these claims are, of course, carefully phrased using terms like 'may' and 'it is thought that'. But subliminally, the messages are there. We've taken a look at how their promises stack up against the available scientific evidence and known problems.

A number of cultures bear centuries of witness to the performance of some herbs — such as the Chinese for ginseng and ginkgo biloba, Brazilians for guarana, and native Americans for echinacea. In parts of Europe, particularly Germany, several of our pick of herbs are routinely prescribed in general practice. However, in other western countries — especially those like the US and Australia where herbal supplements are vigorously marketed — proponents of evidence-based medicine argue there's not sufficient proof of both safety and efficacy.

Here's the CHOICE review of the supplements' promises, proof and problems.



Echinacea

(*E. purpurea*, *E. augustifolia*, *E. pallida*)

Promises: Prevents and treats colds; boosts the immune system in acute and chronic illness; antibacterial and anti-inflammatory.

Proof: Lab tests have shown its active ingredients do fight inflammation and enhance immune-system activities such as the production of macrophages (white blood cells that detect and engulf germs). In 1998 the Cochrane Centre reviewed 16 trials of the use of echinacea to prevent and treat the common cold. Results were mostly positive (the herb worked better than a placebo). But there are three species of echinacea and all were used, so there isn't enough evidence to recommend a specific product. A 1999 study published in the *Journal of Family Practice* using root extracts of two species didn't find echinacea prevented colds; however, it appears to be effective when used at the first sign of a cold.

Problems: Echinacea is one of the top-selling herbal supplements and has a good safety record, especially considering its enormous popularity. But scientific research paints a confusing picture of whether and how it works. Some rare allergic reactions have been reported and its long-term use is controversial (a spokesperson for the National Herbalists' Association recommended to us a maximum of three months' use).

Our verdict: Try it at the first sign of a cold, but don't expect miracles.

Ginseng

(*Panax ginseng*, *Eleutherococcus senticosus*)

Promises: Boosts mental and physical energy and stamina (including sexual), and 'keeps you young'. It's also classified as an 'adaptogen', a substance that improves response to stress. In China many people over 50 take ginseng root daily to promote longevity.

Proof: Tests on animals show positive effects on the hormonal and immune systems (an increase in natural killer cell activity, for example). A study of patients with diabetes also reported improvements in energy and wellbeing and lower blood glucose levels. But other research on humans has been contradictory and poorly controlled.

Problems: The name ginseng can refer to any of 22 different plants, each with different properties. If you're unaware of this, you won't know what you're buying. To mention just two types, Korean ginseng (*Panax ginseng*) is very stimulating and shouldn't be taken regularly or in pregnancy, nor with coffee. Siberian ginseng (*Eleutherococcus senticosus*) isn't even from the ginseng family, but has ginseng-like actions and is not as stimulating as *Panax*. It can therefore be taken for longer periods and has been extensively used by Russian athletes.

Adverse effects have been reported from ginseng,



COURTESY OF JENNY GRIMINGTON

including nosebleeds, high blood pressure, vaginal bleeding, breast tenderness and headache. *Panax* shouldn't be taken with blood-thinning drugs such as aspirin or warfarin because it heightens their blood-thinning effect. Nor should it be taken with certain anti-depressants, if you have high blood pressure or are pregnant or in the acute stages of an infection.

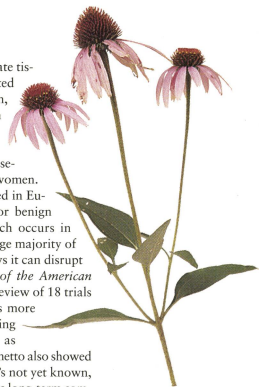
Our verdict: If you want to try ginseng, make sure you know what you're getting. Siberian ginseng would be better to try than Korean, but still check with your doctor about other medications you're taking.

Saw palmetto

(*Serenoa repens*)

Promises: Shrinks enlarged prostate tissues. Improves symptoms associated with enlarged prostate in older men, like impotence and problems with urinating (too frequently at night, with difficulty, or not emptying the bladder). It's also said to be useful for reproductive problems in women.

Proof: This herb is commonly used in Europe to treat enlarged prostate or benign prostate hyperplasia (BPH), which occurs in many men over age 40 and the large majority of men over 80. As the prostate grows it can disrupt urine flow. In 1998 the *Journal of the American Medical Association* published a review of 18 trials that concluded saw palmetto was more effective than a placebo in reducing symptoms and just as successful as one of the standard drugs. Saw palmetto also showed fewer side effects and costs less. It's not yet known, however, whether the herb prevents long-term complications of BPH or reduces the need for surgery.



Echinacea (above) may be effective if you use it at the first sign of a cold.

Problems: This herb appears very safe, barring rare cases of stomach upset. It affects activities of the reproductive system in men and women, and therefore is best not used in pregnancy or with hormone replacement therapy (HRT) or the pill.

(To see which herbs can be useful for older women, see *Alternative menopause* in CHOICE, September 1999, or go to www.choice.com.au/articles/a100812p1.htm.)

Our verdict: Unless you're taking other hormonal medication or are pregnant, it's apparently safe and effective, especially for older men.

St John's Wort (below): fewer side effects than conventional anti-depressants?



COURTESY OF JENNY GRIMINGTON

St John's Wort

(*Hypericum perforatum*)

Promises: Will modulate the brain chemicals associated with depression to keep you feeling good.

Proof: There's some evidence — given in an analysis of 23 trials published in the *British Medical Journal* in 1996 — that extracts of St John's Wort work better than a placebo for depression, are as effective as conventional anti-depressants and have fewer side effects. The Cochrane Centre's review of 27 trials confirmed the first and third of these findings but balked at the notion of it being as effective as conventional anti-depressants. However, studies haven't yet pinpointed the active ingredients or exactly how they work.

Problems: There's mounting evidence that St John's Wort can have very significant interactions with a range of prescribed drugs. It's extremely important to check with your doctor before using it, and you shouldn't use it if you're on anti-depressants or have high blood pressure. Another worrying side effect for Australians is increased sensitivity of the skin to sunlight, so if you're using this herb you have to take extra care to 'slip, slop, slap'.

Our verdict: Could be worth a try if the doctor treating you for depression agrees, and it doesn't impact on any other drugs you're taking. Watch that sun, though.

Don't treat yourself

People are increasingly treating themselves with herbal supplements, particularly when they're suffering from conditions associated with modern life (such as stress or anxiety), or illnesses for which there's currently no definitive cure — such as AIDS, Alzheimer's or chronic fatigue syndrome.

The healing properties of some plants have been well-established in medicine for thousands of years, but buying supplements direct and medicating yourself introduces new risks for the following reasons:

- Medicinal herbs can have adverse effects, and many interact with conventional drugs.
- People tend not to mention using herbs to their doctor, because they don't perceive them as drugs. Doctors in turn may not be well informed about herbs and may not recognise any effects or interactions for what they are.
- Due to lack of regulation or quality control, supplements can contain a mixture of herbs and other ingredients that can increase, decrease or change the effect of the herb.
- Herbal supplements can also contain widely varying amounts of active ingredients. For example, a US test reported in our sister magazine *Consumer Reports* last year found a 17-fold difference in one active ingredient across nine brands of St John's Wort.

■ Dosage, duration and appropriateness of treatment becomes a matter of guesswork without reliable information and professional monitoring.

■ You could waste a lot of money if you just believe the marketing and the hype and don't find out from an unbiased source (which may well not be your local health food shop) which of the claims has a basis in evidence.

If you want to use herbs, CHOICE recommends:

- Always consult your GP (if you have one who knows about herbs) or a qualified herbalist. The latter is likely to mix a herbal tincture specially for you. This is very different from the supplements you can buy off the shelf.
- If you're pregnant or breastfeeding, get professional advice to weigh up the risks. Some herbs should definitely not be taken in pregnancy, such as ginseng and saw palmetto.
- Keep all your practitioners equally informed about what you're taking.
- For advice on how to find a qualified alternative practitioner, see *Alternative health* in the July 1997 issue of CHOICE, or go to www.choice.com.au/articles/a100212p7.htm.
- If you must buy supplements to self-medicate, at least buy only reputable, well-established brands and read the directions carefully.

Ginkgo

(*Ginkgo biloba*)

Promises: Will fix anything to do with impaired blood circulation to the brain or extremities. Frees elderly people of tinnitus, dizziness, headaches, depression, impotence, fatigue and memory loss. Tones the blood vessels and reduces the risk of thrombosis and strokes. Used for Alzheimer's, chronic fatigue syndrome and recovery from stroke.

Proof: Ginkgo is very frequently prescribed in Europe. There's considerable interest in it and a lot of sales power behind it: a quick search on the Internet revealed over 9000 Web pages. It's been approved in Germany for treatment of dementia, and studies have found it better than a placebo, with few side effects. Last year an Australian study funded by Blackmores found ginkgo improved cognitive function in younger people too, and it was dubbed the "first smart pill validated by scientific empirical research". However, this research needs to be independently validated. Ginkgo has also been shown to work for circulatory problems that cause calf pain. The positive research is based only on *standardised* ginkgo extract (which is not necessarily what you might buy).

Problems: Ginkgo is considered relatively safe, with a few minor side effects reported like stomach upset and headache. There have been some reports of spontaneous bleeding in the eye. Like ginseng, it shouldn't be taken with blood-thinning drugs (aspirin, warfarin).

Our verdict: If you're an elderly person who's experiencing circulatory problems or dementia, you could ask your doctor about ginkgo. Don't race out and buy it on your own. And you'd need to be sure to get the standardised extract.

Guarana

(*Paulinia cupana*)

Promises: Gives you the life force of the Amazon (where it originates). Keeps you alert and full of energy and stamina by stoking the adrenal glands.

Proof: You won't need scientific trials when you realise that its active ingredient, guaranine, is identified as caffeine or as belonging to the same molecular family as caffeine (depending on who you believe). We all know that caffeine works. Some argue that guaranine is healthier because the other components in the whole guarana seed soften the impact of the caffeine.

Problems: Be aware of the death of a woman who is reported to have consumed an energy-boosting drink containing an un-



COURTESY OF JENNY GRINGLINGTON

specified amount of guarana. She is said to have had a heart problem which required close surveillance of her caffeine intake.

One Australian industry source says it's opted not to manufacture guarana for ethical reasons, because it's often sold spiked with additional caffeine and targeted at 19–30-year-olds as 'natural speed'. Frequent use can lead to caffeine dependency. Herbalists rarely prescribe it.

Our verdict: It's probably just as effective to have your caffeine in a cup: it's definitely cheaper and you'll know how much you're getting.

Kava-kava

(*Piper methysticum*)

Promises: It's worth taking a look at websites like www.kickbackwithkava.com/Kava_Stories.htm just for the entertainment value. This site sells kava powder that you make into a drink. Testimonials from users extol its virtues for everything: it makes you mellow, fuels great parties, gives groovy dreams and can even "make your secretary's lips go numb"!

Proof: There's been only a handful of clinical trials. These do suggest kava reduces anxiety, although it doesn't relax everybody to the same degree. There's been no long-term study of its safety, effectiveness or correct dosage.

Problems: In the South Pacific, kava has been used for centuries as a social and ceremonial drink. However, you're most likely to encounter kava in pill form. Large doses of the pills can make you tipsy. Kava is also known to interact with certain drugs. And chronic overuse can, quite literally, leave you a mellow yellow (that's the colour your skin goes).

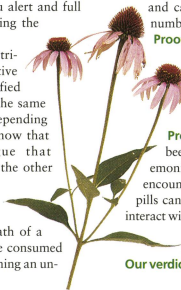
Our verdict: Forget it. There are better ways to relax.

Ginkgo biloba (above): may help with dementia, but needs more independent research.

Want more info?

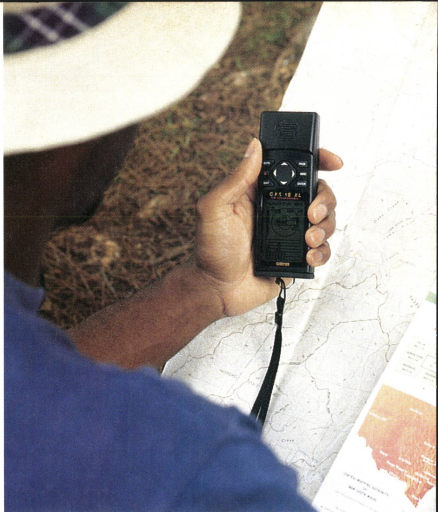
■ For information on how herbalists work, see *Alternative Health* in CHOICE, July 1997, or go to www.choice.com.au/articles/a100214p4.htm.

■ For reasonable reviews of recent scientific research on herbs, try the American Botanical Council's website at www.herbalgram.org or the Herb Research Foundation at www.herbs.org/current/ — but bear in mind both organisations are committed to herbal medicine.



Where on earth am I?

You can now get an electronic gadget that listens to satellites and tells you where you are. What does it mean for the explorer in us?



IN BRIEF

■ The global positioning system (GPS) — a satellite-based radio navigation system — is accurate to within 100 to 300 metres, or closer on some models.

■ For everything from bushwalking to boating, and even navigating your car, handheld GPS units are very handy gadgets.

■ For all its virtues, GPS is really a complement to, rather than a substitute for, good navigation skills and a map.

“I’LL NEVER GO BUSHWALKING AGAIN,” said a Blue Mountains teenager last November, shortly after she and five of her friends emerged from three days lost in the bush.

However, an introduction to the global positioning system (GPS) might change her mind. Courtesy of a constellation of satellites operated by the US Department of Defense, the hikers could have tracked their path into the bush and retraced their steps.

All they needed was one of a range of small, handheld GPS receivers to complement their map. These navigational tools are becoming quite reasonably priced, making a complex technology once designed purely for the military accessible to anyone.

We put six portable GPS units to the test, all priced under \$500.

What is GPS?

The GPS operates through the interaction of three elements:

- 24 satellites orbiting the earth at a distance of approximately 20,000 km.
- A series of ground stations that track and communicate with the satellites to monitor their exact position and ensure they’re working properly.
- A receiver that uses coded signals transmitted by the satellites, telling you your location, altitude, speed, direction and the time.

The receiver uses a technique called satellite ranging, which involves measuring the distance between the receiver and the satellites it’s tracking. Each receiver has an inbuilt almanac detailing the location of all satellites. The satellites are constantly broadcasting coded ranging signals and correctional data provided by the ground stations on any variations in this orbital position, together with the time. Your GPS receiver processes this data, determining how long the signal has taken to travel to your location and thus how far away the satellite is.

A ‘lock’ on three satellites is required to give a two-dimensional location (latitude and longitude), and a fourth lock is required to give a three-dimensional location, including altitude. Given an unobstructed sky, up to 12 satellites can be available to you at any one time, anywhere on the globe.

The system operates 24 hours a day in any sort of weather, and beyond the cost of the receiver itself, access is free.

Error and accuracy

The possibilities offered by such a navigational tool clearly go well beyond bushwalking in the Blue Mountains (see *The sky’s the limit*, above right, for details of how GPS is being used). However, the scope of its uses depends on the level of accuracy obtainable — and sure enough, GPS is not without its limitations.



First, satellite signals must have a direct, unobstructed line of sight to your GPS receiver, and can be blocked by mountains and buildings or even tree cover. Of the six models tested, the **MAGELLAN GPS 300** couldn't track satellites when under medium tree cover, and the **APELCO GPS11 Track 12** failed even under light tree cover. The other four managed to maintain a position fix under medium tree cover, though with reduced signal strength.

Even when a strong signal is available, there are numerous sources of error that can degrade GPS accuracy. The most significant of these is deliberate — a randomly changing error added to the coded signals by the US Department of Defense. Known as 'selective availability' (SA), it stops you precisely pinpointing a location and is an anti-terrorist measure.

Even allowing for this, GPS can be accurate to within 100 metres 95% of the time, and 300 metres 99% of the time. And position averaging (recording a large number of fixes and averaging your position over a period of several hours) can reduce the error to within 30 metres. Four of the models tested include an automatic position averaging feature (see the table, page 25, for model details).

Just centimetres away

For many applications, near enough may be good enough, but for those seeking pinpoint accuracy there's a solution — the differential global positioning system (DGPS), which adds another segment in the form of fixed land-based stations.

A DGPS station compares its accurately known location to that calculated by its GPS receiver and then determines the error. Correctional data derived from this error is then transmitted to DGPS receivers within a couple of hundred kilometres. Only the **MAGELLAN GPS 300** in this test can't accommodate the addition of a DGPS unit.

With special techniques and expensive receivers, DGPS is capable of delivering accuracy to within a centimetre. With the models in this test, it can provide accuracy within one to five metres. As it be-

The sky's the limit

Beyond recreational activities such as bushwalking and boating for which you can use the handheld receivers profiled here, GPS technology is finding its way into areas as diverse as agriculture, search and rescue, mapping and surveying, and even golf — it's handy knowing how far you are from the green!

Drivers in many parts of the world can install GPS devices incorporating street maps in their car. A voice gives directions while your vehicle is depicted as a moving blip on an electronic map. See page 26 for a review of one model available here. A handheld GPS receiver can do the same with a notebook computer.

You may also have noticed GPS receivers (plus a transmitter) installed in taxis, enabling the taxi base to monitor cab location and direct the nearest taxi to waiting customers. It also allows a vehicle to be tracked in the event of it being hijacked.

In Perth, the buses of one city service have gained popularity with commuters with the introduction of CATS, the Central Area Transit System. Buses are fitted with a GPS-based fleet monitoring system that informs passengers of bus arrival times via display boards at each stop and also allows buses to be suitably spaced along the route. While tall and dense cityscapes can hamper the system with considerable signal interference en route, this is an application of GPS all bus users would probably like to see more of.

comes widely available it'll make selective availability redundant, and the US Government is expected to terminate SA shortly.

Reading your GPS unit

Each model differs in its presentation of GPS information, but there are basically five different types of 'page' on show (see the photos on page 22):

■ **Satellite page.** When you turn on the unit you'll see a page detailing the satellites being tracked and the strength of each signal. Preferably, it should also indicate whether or not you have a fix on the necessary minimum four satellites.

WHAT TO BUY

GARMIN GPS 12	\$359
GARMIN GPS 12XL	\$499
LOWRANCE GlobalNav12 *	\$359
MAGELLAN GPS 315	\$499

* This model has been discontinued but you still may find it in shops.

For most uses, the above four models, which can maintain a position fix under medium tree cover, are the best. The inclusion of a position averaging feature, not available on the other two tested units, should also enhance their accuracy, and all four can accommodate DGPS.

However, the large number of features available and the different requirements of each field of use can make a particular combination of features more suitable to individual applications. For example, while the **APELCO GPS11 Track 12** gets the poorest reception under light tree cover, its affordable price (\$299), DGPS compatibility, useful accessories, optional external aerial and adequate reception beneath unobstructed skies make it a good buy for marine use. Check the profiles (starting on page 23) and the table (page 24) for features that might be particularly useful to you.

A diagram of the sky showing where the satellites are located is particularly useful for finding the best place to overcome obstructions and gain a line of sight to each satellite. In this test, all but the APELCO GPS11 Track 12 included this feature.

Satellite signals can be processed either serially, one after the other, or in parallel, where multiple signals are processed at the same time. Parallel processing potentially provides a faster and more accurate fix, and in this test all but the MAGELLAN GPS 300 use this method.

■ **Position page.** Generally lists the co-ordinates of your current location, altitude, speed, direction of travel and date and time information. It should also include a compass.

■ **Waypoint/landmark page.** This allows you to record locations you wish to mark and perhaps return to. You should be able to give each location a meaningful name, such as 'home' or 'camp', and the page will also list the location's co-ordinates and the distance and bearing from other locations.

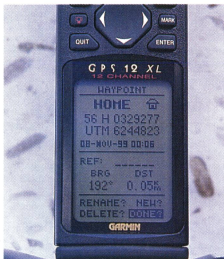
Below are examples of the five standard 'pages' you'd expect to find on a handheld GPS unit. See pages 21 to 22 for more information on them.



Satellite page



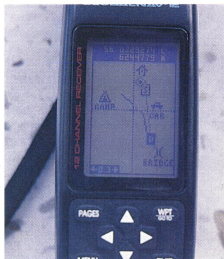
Position page



Waypoint/landmark page



Navigation page



Plotter page

Models in this test can store from 100 to 600 waypoints (see the table for details).

The Blue Mountains bushwalkers could have recorded waypoints throughout their journey and subsequently made their way back from one waypoint to the next by using either a 'go to' instruction, which directs the GPS receiver to show the way to a particular waypoint, or the 'route' function, which allows a series of waypoints to be linked on the way to a final destination. Models tested were able to record between one and 20 routes with up to 50 legs.

■ **Navigation page.** This is the page to watch after issuing your 'go to' instruction. It'll show the direction and distance to your destination, together with an estimated journey time based on your current speed. It should also include your 'cross track error', indicating how far adrift the route is from a straight line ('as the crow flies') drawn from your starting point to your destination.

■ **Plotter page.** This provides a plot trail or track of where you've been, showing your present location and any waypoints within range. It can also be used on some models for backtracking, by automatically converting the track to a series of waypoints. You should be able to adjust the scale of the plot with a zoom control.

As helpful and extraordinary as GPS may be, it's not infallible, and our bushwalking friends would be wise not to depend too heavily on their receivers. With the need to negotiate physical obstacles in your path (such as reefs at sea or ravines on land) and the possibility of obstructions impeding signal strength and accuracy, GPS is a complement to, rather than a replacement for, a map and good navigation skills.

WHAT TO LOOK FOR

You can buy GPS units in camping and marine supply stores, retail electronics outlets and department stores, as well as over the Internet. Before buying one, think about what you want to use it for. Basic considerations include:

- A battery status indicator.
 - A lightweight model, comfortable to hold and easy to operate with one hand.
 - A large, clear display with backlighting (though use the backlighting sparingly, as it'll eat up your battery power).
 - An external power cable.
 - A socket for connecting to a computer for transferring waypoint information to your PC or for use with a notebook computer for street navigation in a car.
 - A comprehensive, user-friendly instruction manual; a quick-reference guide is also useful.
 - A two-key option (or press and hold) is preferable for turning the unit on and off to avoid doing so accidentally.
 - Storage for an adequate number of waypoints and routes for your purposes.
 - While DGPS isn't widely available yet, it's good if a current GPS unit is DGPS ready.
 - Position averaging feature (see *Error and accuracy*, page 20).
 - A good plotter with a clear display and the ability to view parts of the plot that are offscreen without changing scale. There should be a good range of zoom scales.
 - GPS receivers can display your current location in a couple of different ways: latitude and longitude (mainly for marine and air use), and a co-ordinate system that's the same as that used for the grid on your topographical map, for navigating in the bush. For the latter in Australia, the receiver needs to be set up with the UTM (Universal Transverse Mercator) co-ordinate system, which is part of the built-in software.
 - Previous co-ordinates aren't displayed when the unit is next switched on, or you could mistakenly think that's where you are now.
 - The satellite page should indicate how many satellites are being used.
 - An internal back-up battery.
 - Waterproof (all models in this test are).
- Particularly for marine use:**
- An external antenna, for example for using the unit inside a boat cabin.
 - A man overboard (MOB) function — hitting this button automatically registers your location as a waypoint and activates the navigation page to direct you back to it.
 - Floatability (only the **MAGELLAN GPS 300** and **GPS 315** in this test can float).
 - Latitude and longitude co-ordinates.

PROFILES

Models are profiled in alphabetical order within groups. Prices shown are a good target to aim for when shopping around, based on nationwide checks in November/December 1999.

All the tested models have the following:

- Latitude and longitude co-ordinates.
- Universal Transverse Mercator (UTM) co-ordinates, which let you navigate based on the grid and co-ordinate system used on Australian topographical maps.
- A backlit display with adjustable contrast.
- Battery status indicator.
- Can be used with rechargeable batteries instead of AA alkalines.
- Accuracy: with selective availability (SA — see *Error and accuracy*, page 20, for more on this) turned on, better than 100 m 95% of the time, and 100–300 m 99% of the time (position averaging can reduce this to 15–25 m).

OK under medium tree cover

GARMIN GPS 12



Target price: \$359

Manufacturer's website: www.garmin.com

No., size and type of batteries: 4, AA, alkaline

Internal back-up battery: Rechargeable lithium

Built-in data: No

Waypoint input/output software available: Data

upload and download with optional PC software

Good points

- Easy to operate with one hand.
- Includes position averaging feature.
- Has a data port for connection to other navigation aids or a computer.
- Quick-reference card.
- Not easy to accidentally switch off.
- Sun rise and set times.
- DGPS ready.

Bad points

- External power uses 5-8 V DC, which is too low for direct connection to car/boat batteries.
- Fairly easy to accidentally switch on, which could run the battery down if you didn't notice.

GARMIN GPS 12XL



Target price: \$499

Manufacturer's website: www.garmin.com

No., size and type of batteries: 4, AA, alkaline

Internal back-up battery: Rechargeable lithium

Built-in data: Database of South Pacific cities

Waypoint input/output software available: Data

upload and download with optional PC software

Good points

- Easy to operate with one hand.
- Optional external antenna for uses like inside boat cabins.
- Includes position averaging feature.
- Has a data port for connection to other navigation aids or a computer.
- Not easy to accidentally switch off.
- Quick-reference card.
- Cloth carry case included.
- Sun rise and set times.
- DGPS ready.

Bad points

- One of the most expensive models.
- Fairly easy to accidentally switch on, which could run the battery down if you didn't notice.

GPS UNITS

1 2

Brand / model (in alphabetical order within groups)	Manufacturer / distributor	Origin	Target price (\$)*	Warranty (years)	Weight (g)**	Measured dimensions (H x W x D, cm)	Display size / resolution (W x H, cm / pixels)	External power (V DC)	External antenna available
OK UNDER MEDIUM TREE COVER									
GARMIN GPS 12	Garmin	Taiwan	359	1	257	14.7 x 5.2 x 3.3	3.7 x 5.5 / 64 x 100	5-8	
GARMIN GPS 12XL (A)	Garmin	Taiwan	499	1	258	14.7 x 5.2 x 3.3	3.7 x 5.5 / 64 x 100	10-32	✓
LOWRANCE GlobalNav 12 (B)	Lowrance Electronics	Mexico	359	1	345	17.2 x 5.8 x 4.2	3.7 x 5.5 / 64 x 100	5-16	
MAGELLAN GPS 315 (C)	Magellan Systems	Taiwan	499	1	187	15.8 x 5.3 x 3.6	3.7 x 5.6 / 104 x 160	9-35	
NOT OK UNDER MEDIUM TREE COVER									
APELCO GPS11 Track 12	Raytheon Electronics	France	299	2	254	14.9 x 5.1 x 3.5	3.3 x 5.2 / 64 x 100	10-32	✓
MAGELLAN GPS 300	Magellan Systems	Taiwan	299	1	179	15.8 x 5.3 x 3.5	3.8 x 5.4 / text	9-16	

PROFILES continued

LOWRANCE GLOBALNAV12

(This model has been discontinued but you may still find it in shops or secondhand.)

Target price: \$359

Manufacturer's website: www.lowrance.com

No., size and type of batteries: 4, AA, alkaline

Internal back-up battery and life: Lithium, up to 10 years

Built-in data: No

Waypoint input/output software available:

Compatible with PC-based map software

Good points

- Very good plotter.
- Includes position averaging feature.
- Has a data port for connection to other navigation aids or a computer.
- Not easy to accidentally switch off.
- Good onscreen directions for using functions.
- Quick-reference card.



Lowrance
Globalnav12

- Sun rise and set times.

- DGPS ready.

Bad points

- Largest and heaviest model tested.
- The least comfortable to hold and not easy to operate with one hand.
- Fairly easy to accidentally switch on, which could run the battery down if you didn't notice.
- More keystrokes are required to perform tasks compared to other models.

MAGELLAN GPS 315

Target price: \$499

Manufacturer's website: www.magellangps.com/frames/frame2.htm

No., size and type of batteries: 2, AA, alkaline

Internal back-up battery and life: Lithium, 10 years

Built-in data: Database of 19,000 cities

Waypoint input/output software available:

Download from optional Datasend CD; data upload and download with optional PC software

Good points

- Easy to operate with one hand.
- Floats.



Magellan
Gps 315

- Includes position averaging feature.

- Has a data port for connection to other navigation aids or a computer.

- Not easy to accidentally switch on.

- Quick-reference card.

- Sun and moon rise and set times.

- DGPS ready.

Bad points

- One of the most expensive models.
- Easy to accidentally switch off.

Not OK under medium tree cover

APELCO GPS11 TRACK 12

Best Buy for marine use

Target price: \$299

No., size and type of batteries: 4, AA, alkaline

Internal back-up battery and life: Lithium, 3-5 years

Built-in data: No

Waypoint input/output software available: Data

upload and download with PC

Good points

- External power and computer data cables supplied.



Apelco Gps11
Track 12

3	4	5	6	7	8	9			
no / type of channels	Waypoints: no / no of characters	Graphic icons for waypoints	Savable reversible routes / legs per route	Retained plot trail (track), points	Man overboard	Position averaging feature	DGPS ready	Battery life (hours, claimed / measured)	Brand / model (in alphabetical order within groups)
2 / parallel	500 / 6	16	20 / 30	1024	✓	(G)	✓	Up to 24 / 18	GARMIN GPS 12
2 / parallel	500 / 6	16	20 / 30	1024	✓	(G)	✓	Up to 24 / 18	GARMIN GPS 12XL (A)
2 / parallel	Up to 250 / 8	28	Variable (D)	2000		(G)	✓	Up to 11 / 9.5	LOWRANCE GlobalNav 12 (B)
2 / parallel	Up to 500 / 6	0	20 / 30	1200	✓	(H)	✓	Up to 15 / 8.5	MAGELLAN GPS 315 (C)
2 / parallel	Up to 600 / 6	0	20 / 20	300 (F)	✓		✓	16 / 6	APELCO GPS11 Track 12
1 / serial	100 / 4	0	1 / 10 (E)					Approx 24 / 21	MAGELLAN GPS 300

* Prices shown are a good target to aim for when shopping around, based on nationwide checks in November/December 1999.

** Measured weight, with batteries and wrist strap.

(A) The Garmin GPS 12CX is similar but has 1000 waypoints, a database of towns and cities and a colour screen.

(B) The Lowrance GlobalNav 212 is similar but has 500 extra waypoints and more routes.

(C) The Magellan GPS 320 is similar but has a marine database.

(D) 500 legs in up to 50 routes, with a maximum of 50 legs per route.

(E) Routes not reversible.

(F) 25 hours maximum.

(G) For waypoints only.

(H) Automatic when stationary.

- Mounting bracket supplied (for a car dashboard or boat).
- Comfortable to hold and easy to operate with one hand.
- Optional external antenna available for uses like inside boat cabins.
- Has a data port for connection to other navigation aids or a computer.
- Not easy to accidentally switch off.
- DGPS ready.

Bad points

- Doesn't function under even light tree cover.
- Buttons tend to stick in the 'on' position.
- Fairly easy to accidentally switch on, which could run the battery down if you didn't notice.
- Not very intuitive to use.
- Insertion of batteries is poorly labelled.
- Shortest measured battery life.

MAGELLAN GPS 300

(This model has been discontinued but you may still find it in shops or secondhand.)

Target price: \$299

Manufacturer's website: www.magellangps.com/frames/frame2.htm

No., size and type of batteries: 2, AA, alkaline

Internal back-up battery: None

Built-in data: No

Waypoint input/output software available: No

Good points

- The lightest model tested.
- Easy to operate with one hand.
- Floats.
- The longest measured battery life.
- Quick-reference card.

Bad points

- Doesn't function under medium tree cover.
- No position averaging.
- No internal battery back-up.
- Only one savable route.
- Displays previous position co-ordinates when switched on.
- Has no data port for connection to other navigation aids or a computer.
- Very easy to accidentally switch on or off.
- Not DGPS ready.



Magellan
Gps 300

1 External power (V DC)

If you want to use an external power source (such as a car or boat battery) instead of the internal battery, you'll need your power source to be within the allowable voltage range. The **GARMIN GPS 12's** 5-8 V DC is too low for car and boat batteries, which are usually 12V.

2 External antenna available

This is particularly useful for marine use, as it lets you use the GPS unit inside the boat's cabin instead of only out in the open.

3 Number and type of channels

See *Reading your GPS unit: satellite page*, on page 21, for an explanation.

4 Waypoints

See *Reading your GPS unit: waypoint/landmark page*, on page 22, for an explanation.

5 Savable reversible routes/legs per route

See *Reading your GPS unit: waypoint/landmark page* for an explanation.

6 Retained plot trail (track)

See *Reading your GPS unit: plotter page*, on page 22, for an explanation.

7 Man overboard

See *What to look for*, page 23.

8 Position averaging feature

This helps estimate your position with greater accuracy; see *Error and accuracy*, page 20, for more information.

9 DGPS ready

DGPS (differential global positioning system) can also fix your position with greater accuracy. See *Just centimetres away*, page 21, for more on this.



Star turns

Satellite-guided car navigation systems have arrived in Australia. Is it time to toss out the old street directory?

IN BRIEF

- While only one car navigation system is currently available in Australia, there'll be others within a year.
- By the end of 2000, 90% of populated areas in Australia will be mapped for satellite navigation.
- As impressive as satellite navigation technology is, it's currently limited to the high end of the car market, and its cost will ensure street directories remain in most glove boxes for some time yet.

DRIVING THROUGH unfamiliar streets, you miss a turn. With no idea where you are, you fumble through the dog-eared and out-of-date street directory with your navigationally incompetent partner, arguing over which way is up. "Are we there yet?" the kids wail from the back seat. Resting your head on the steering wheel, you can't help wishing it was a lot easier to find your way around.

If this is a familiar scenario, your prayers may have been answered. Satellite navigation (sat-nav) systems for cars have reached Australia and, if you believe the hype, you may never get lost again.

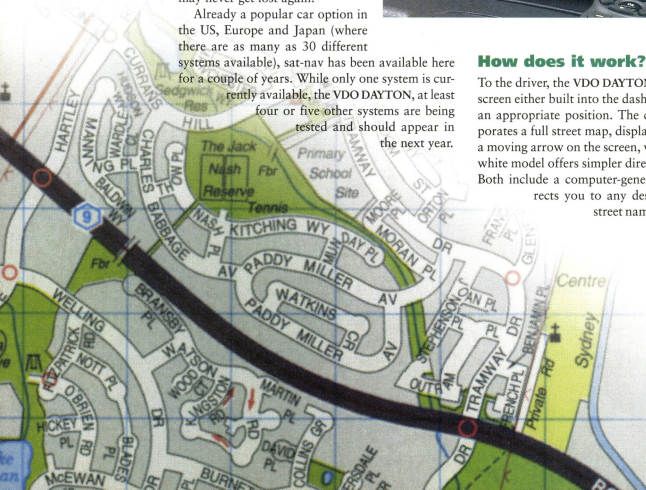
Already a popular car option in the US, Europe and Japan (where there are as many as 30 different systems available), sat-nav has been available here for a couple of years. While only one system is currently available, the VDO DAYTON, at least four or five other systems are being tested and should appear in the next year.



PHOTO COURTESY OF VDO DAYTON

How does it work?

To the driver, the VDO DAYTON appears as a small screen either built into the dashboard or perched in an appropriate position. The colour model incorporates a full street map, displaying your vehicle as a moving arrow on the screen, while the black-and-white model offers simpler directional instructions. Both include a computer-generated voice that directs you to any destination, such as a street name, that you enter via a remote control.





The black-and-white version of the VDO Dayton offers simple directional instructions.

To determine the exact position of your car, the navigation system computer uses signals transmitted from GPS (global positioning system) satellites together with differential data (DGPS) to correct for any error. (See the test report on handheld GPS units, page 20, for details on how GPS and DGPS work.) This information is compared to a map of Australian roads on a CD you put in the system, together with details of the vehicle's speed (by sampling pulses from the car's speedo) and direction (via a built-in gyroscope).

It sounds impressive — and it is. CHOICE went for a test drive, and while the advertised accuracy of the system is somewhere in the vicinity of 20 metres, it was right on the money in our trip around Sydney. It's not entirely dependent on the GPS signal for its navigational accuracy, with the information provided by the speedo and the gyroscope keeping you on track even when the signal is lost for a while, as it can be, especially in the concrete jungle of the inner city.

Where can it take me?

Pacific Access, a division of Telstra, teamed up with Universal Press, the publisher of UBD and Gregory's street directories, and BMW in October 1995 to collate map data.

Almost five years on they've covered all capital cities, including Canberra. Darwin and Hobart aren't commercially available yet but will be in the next CD release scheduled for July 2000. At present 70% of populated areas are mapped, and that should reach 90% by the end of this year. The maps are updated every six months.

Other than street details, the CDs include various points of interest, from the nearest hotels and cinemas to post offices and airports, and you can

instruct the system to direct you to the location of your choice. All Australian map data will eventually be included on a single CD.

What's the deal?

Sat-nav isn't cheap: the VDO DAYTON MS 5000 (colour version) retails for \$3495, while the MS 3000 (black-and-white version) is \$2495. Installation costs vary depending on the model of car, but shouldn't exceed \$300. The CDs are sold separately for \$299.

A number of car manufacturers are offering navigational systems as options, although currently you're looking at the upper end of the market, such as BMW, Alfa Romeo and HSV Holden. The Hyundai Sonata, however, is the first at the low end to offer GPS.

So now you know where you're going, all you need to worry about are those whingeing kids in the back seat. However, according to VDO, systems in the future will include screens in the back of the car where passengers can watch DVDs or play Nintendo or even observe the navigational map you're following.

What next?



The colour model incorporates a full street map, displaying your vehicle as a moving arrow on the screen.

But wait, there's more ...

The benefits of GPS technology are extending beyond whiz-bang navigational equipment. Numerous monitoring and tracking devices are now available that detect and report when a car is stolen, allow it to be tracked and even remotely activate the engine immobiliser.

Again, installation isn't cheap, generally costing between \$1500 and \$2000, together with annual monitoring fees. But a number of insurance companies offer reductions in insurance premiums once security systems of this type are installed, depending on theft rates for the model of your car.

Blend, chop, grind, crush



Are you tired of blending soup, chopping veggies or grinding spices by hand? Find out which benchtop blenders can do these tasks well — and crush ice, too, for that perfect cocktail.

IN BRIEF

- All the 18 benchtop blenders tested are good for blending soup and other soft foods. What differentiates the better performers from the rest is their ability to chop hard veggies and crush ice.
- See the table on page 30 for a list of all the blenders tested and their scores. We've profiled the top 10, right.

FANCY A FROZEN STRAWBERRY DAIQUIRI TO HELP YOU relax after a hard day's work? With the help of a good benchtop blender even the uninitiated bartender can turn a few basic ingredients into a delicious cocktail (see page 31 for the recipe). But the blender needs to crush ice finely and evenly — something not all models on the market excel at.

What they do

We bought 18 benchtop blenders with a jug capacity of 1–1.5 L and priced up to \$100, and tested their performance on a variety of foods and tasks: blending mayonnaise and pumpkin soup, chopping carrots, grinding nuts and crushing ice. If you're after an appliance for slicing, shredding or consistently mixing for long periods of time, get a food processor. Blenders aren't suitable for these tasks.

All the blenders in the *What to buy* list had no or only minor problems blending soft foods, chopping hard vegetables and grinding nuts evenly and uniformly. Most also did well crushing ice — see the profiles, right, for the best at this. While the remaining models scored OK for blending and grinding, they generally had more problems chopping hard veggies and, most noticeably, crushing ice.

WHAT TO BUY

TEFAL 815350	\$70
MISTRAL BL50 Mix n Blend (A)	\$54
KENWOOD BL300T	\$50
MOULINEX Y45 Vitamix	\$70
SUNBEAM Supersize PB070	\$60
MAXIM BL-400	\$38
SUNBEAM Professional PB090	\$93
KENWOOD BL311	\$69
MOULINEX W36 Power Blender	\$80
PHILIPS HR1700 Twist	\$50

(A) Formerly called Black & Decker.



TEFAL 815350

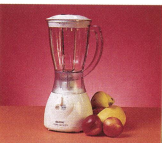
Target price: \$70

Good points

- Excellent results in all performance tests, including crushing ice.
- Second-best for ease of use.
- Light and stable plastic jug that locks into position.
- Cord storage.

Bad points

- The big jug is awkward to clean in the kitchen sink.



MAXIM BL-400

Target price: \$38



Good points

- Excellent results for blending soup, chopping carrots, grinding nuts and crushing ice.
- Light plastic jug.

Bad points

- Controls are stiff and poorly labelled.
- Poor instructions.
- Grinder attachment was poor at grinding nuts — you're better off not using it.
- Spills may leak into the motor through an opening in the base.

What about the rest?

The other models had problems with at least one task: all but the **BREVILLE BLR2** with crushing ice; the **BREVILLE** models **BLR4**, **BLR6** and **CBL5** and the **PANASONIC** with chopping carrots; and the **BREVILLE BLR2** and **TIFFANY BL250** with blending mayonnaise. The **BREVILLE CBL5** also scored comparatively poorly for ease of use.

Profiles are of the models in the *What to Buy*, in rank order from left to right. Prices shown are a good target to aim for when shopping around, based on nationwide checks in February/March 2000. Anything lower is a bargain.



MISTRAL BL50 Mix n Blend

(formerly called BLACK & DECKER)
Target price: \$54

Good points

- Excellent results for blending soft foods, grinding nuts and crushing ice.
- Light and stable plastic jug that locks into position.
- Good instructions, including recipes.

Bad points

- Spills may leak into the motor through an opening in the base.



SUNBEAM Professional PB090

Target price: \$93

Good points

- Excellent results for blending soft foods and crushing ice.
- Has a safety lid lock — it will only run if the lid is locked — and a power-on light.
- Light and stable plastic jug that locks into position.
- Good instructions, including recipes.
- Cord storage.
- Comes with a spatula, an ice crusher and a whipper attachment.

Bad points

- The big jug is awkward to clean in the kitchen sink.
- Handle shape is uncomfortable.
- Spills may leak into the motor through an opening in the base.



KENWOOD BL300T

Target price: \$50

Good points

- Excellent results for blending soft foods, grinding nuts and chopping carrots.
- Light plastic jug.
- Cord storage.

Bad points

- Controls are small and can be difficult to grip.
- Plastic jug doesn't lock into position.
- Poor instructions, no recipes.
- Spills may leak into the motor through an opening in the base.



KENWOOD BL311

Target price: \$69

Good points

- Excellent results in all performance tests, including crushing ice.
- Light and stable plastic jug that locks into position.

Bad points

- The blender vibrates when in use and the non-skid feet don't grip very well.



MOULINEX Y45 Vitamix

Target price: \$70

Good points

- Excellent results for blending soft foods, grinding nuts and crushing ice.
- Has a safety lid lock — it will only run if the lid is locked.
- Light and stable plastic jug that locks into position.
- Fairly simple instructions, including recipes.
- Cord storage.

Bad points

- The big jug is awkward to clean in the kitchen sink.
- Controls are a little stiff — the dial is too small to grip easily.



MOULINEX W36 Power Blender

Target price: \$80

Good points

- Excellent results for blending mayonnaise, chopping carrots and grinding nuts.
- Very good controls.

Bad points

- Heavy glass jug, which doesn't lock into position.
- Lid is loose rather than firm-fitting.
- Poor instructions — no recipes.



SUNBEAM Supersize PB070

Target price: \$60

Good points

- Excellent results for blending soft foods and grinding nuts.
- Equal third for ease of use.
- Light and stable plastic jug that locks into position.
- Good instructions, including recipes.
- Cord storage.

Bad points

- Controls are a little stiff — the dial is too small to grip easily.
- Spills may leak into the motor through an opening in the base.



PHILIPS HR1700 Twist

Target price: \$50

Good points

- Excellent results for blending mayonnaise and chopping carrots.
- Best for ease of use.
- Light and stable plastic jug that locks into position.
- Fairly simple instructions.

Bad points

- Comparatively poor at crushing ice.
- No inner lid (just a very small hole) for adding liquids, such as oil when making mayonnaise.
- Spills may leak into the motor through an opening in the base.

	Brand / model (in rank order)	Manufacturer / distributor	Origin	Target price (\$)	Warranty (years)	Claimed capacity (mL)	Jug material **	Jug height (mm) **
	TEFAL 815350	Groupe Seb	China	70	1	1250	Plastic	260
	MISTRAL BL50 Mix n Blend (A)	Mistral	China	54	2	1300	Plastic	240
equal	KENWOOD BL300T	Hagemeyer	China	50	1	1000	Plastic	230
	MOULINEX Y45 Vitamix (B)	Shiro	Spain	70	1	1250	Plastic	265
	SUNBEAM Supersize PB070	Sunbeam	China	60	1	1500	Plastic	245
equal	MAXIM BL-400 best buy	Maxim	China	38	1	1500	Plastic	255
	SUNBEAM Professional PB090	Sunbeam	Italy	93	1	1200	Plastic	280
equal	KENWOOD BL311	Hagemeyer	China	69	1	1500	Plastic	250
	MOULINEX W36 Power Blender	Shiro	Mexico	80	1	1250	Glass	255
	PHILIPS HR1700 Twist	Philips	Brazil	50	1	1000	Plastic	235
	BREVILLE BLR2	Breville	China	55	1	1200	Plastic	260
equal	KAMBROOK KB815C	Breville	China	80	1	1250	Glass	260
	PANASONIC MX-T1GP	Panasonic	Taiwan	79	1	1000	Glass	270
	TIFFANY BL250	GAF Control	China	50	1	1400	Plastic	245
	MISTRAL MBL100CH Turbo	Mistral	China	74	2	1500	Glass	235
	BREVILLE BLR4	Breville	China	60	1	1250	Plastic	285
	BREVILLE BLR6	Breville	China	69	1	1250	Plastic	285
	BREVILLE CBL5	Breville	China	89	1	1250	Glass	270

WHAT TO LOOK FOR

General

■ A **glass jug** is heavier and may be more difficult to handle when cleaning it or removing the food, but may improve the blender's stability. A **plastic jug** is lighter and easier to handle, but it should lock onto the base for stability.

■ Some **blade assemblies** are **detachable**, which is useful for removing the food around the blade and cleaning.

However, take care to fit the blades correctly to the jug before use to avoid liquids leaking into the motor.

■ Most blenders in this test have an **inner lid** in the middle of the blender lid, which is useful (though usually messy) for adding small quantities of liquid or food while the blender is running. The **PHILIPS HR1700 Twist** and **PANASONIC MX-T1GP** have no inner lid, just a very small opening for drizzling in a little liquid.

■ The **measurements** on blender jugs vary. In this test there were markings for millilitres, litres, cups, cubic centimetres,

ounces and pints. Choose one with clearly visible measurements you're familiar with.

Take care when you lock a jug with plastic lugs into the base, as they can break off if forced onto the motor unit incorrectly. On the Moulinex Y45 Vitamix and Kenwood BL311 (left), lining them up can be a bit fiddly.



Features

■ A blender with a **safety lid lock** won't operate unless the lid is locked in place. It's a good safety feature that can prevent accidents like switching it on while your hand is in the jug, or making a mess by starting it without the lid in place. Of the blenders in this test, only two have it: the **MOULINEX Y45 Vitamix** and **SUNBEAM Professional PB090**.

■ Most blenders have a **pulse** function to give short bursts of power, which is useful for dealing with small quantities of hard foods. Two in this test (the **BREVILLE BLR6** and **MISTRAL MBL100CH Turbo**) also have a **turbo** function for bursts of power on low speed, useful when the load is jammed or caught around the blade.

■ Don't let the **number of speeds** influence your purchase decision. We found little difference in performance between blenders with two speeds and those with more.

■ **Auto clean** is usually a low speed setting for cleaning the interior easily and safely. However, it's just as easy to clean models without this feature: half-fill the jug with warm, soapy water, place the lid on and run for a few seconds.

Attachments

■ A **dry mill** or **grinder** attachment can come in handy for grinding small amounts of dry foods such as coffee beans or nuts, though on the **MAXIM BL-400** it ground nuts very poorly.

■ The **SUNBEAM Professional PB090** has an **ice crusher** attachment, but most of the blenders in the *What to buy* list (and the **BREVILLE BLR2**) were able to crush ice evenly and finely in our test without special attachments.

■ The **SUNBEAM Professional PB090** has a **whipper** attachment for whipping cream or beating egg whites.

2	3	4	5	6	
Pulse	Noise (dB)	Ease of use score (%)	Performance score (%)	Overall score (%)	Brand / model (in rank order)
✓	81	87	100	94	TEFAL 815350
✓	82	81	95	88	MISTRAL BL50 Mix n Blend (A)
	82	78	95	87	KENWOOD BL300T
✓	76	78	95	87	MOULINEX Y45 Vitamix (B)
✓	78	83	90	87	SUNBEAM Supersize PB070
✓	84	77	95	86	MAXIM BL-400
✓	82	81	91	86	SUNBEAM Professional PB090
✓	82	70	100	85	KENWOOD BL311
✓	78	79	90	85	MOULINEX W36 Power Blender
	77	88	81	85	PHILIPS HR1700 Twist
✓	76	77	85	81	BREVILLE BLR2
✓	80	74	80	77	KAMBROOK KB815C
	75	83	70	77	PANASONIC MXT1GP
✓	78	80	70	75	TIFFANY BL250
✓	80	71	74	73	MISTRAL MBL100CH Turbo
✓	80	75	69	72	BREVILLE BLR4
✓	74	76	64	70	BREVILLE BLR6
	77	58	66	62	BREVILLE CBL5

* Prices shown are a good target to aim for when shopping around, based on nationwide checks in February/March 2000. Anything lower is a bargain.

** All models tested have plastic lids.

*** Rounded to the next 5 mm.

(A) Formerly called Black & Decker.

(B) According to the manufacturer, the Y45AG and Y45Y are identical except for wattage.

1 Jug height (mm)

This is the height of the jug with lid when removed from the motor base. A standard bottom cupboard shelf, where you might store it, is 350 mm high.

2 Pulse

This feature gives short bursts of power, useful for crushing hard foods such as ice, nuts, chocolate and hard vegetables.

3 Noise (dB)

Blenders are noisy. Measured noise levels at the user's position ranged from 74–84 dB, which is too loud for normal conversation. Most manufacturers recommend using a blender only in short bursts and running it for no longer than three minutes.

4 Ease of use score (%)

For ease of use we assessed assembly, controls, pouring and scraping, stability and cleaning.

5 Performance score (%)

We tested each blender's performance on a variety of foods and tasks: blending mayonnaise and pumpkin soup, chopping carrots, grinding nuts and crushing ice.

6 Overall score (%)

Ease of use and performance each contribute 50% to the overall score.

Frozen strawberry daiquiri

For the cocktail in our lead photo, you need:

- 45 mL light rum
 - 15 mL strawberry liqueur
 - Juice of ½ lime
 - 5 strawberries
 - Ice
 - 1 maraschino cherry (optional)
- Crush the ice in a blender. Blend rum, liqueur, lime juice and three of the strawberries with plenty of the crushed ice until almost frozen. Pour unstrained into a glass, and garnish with the remaining strawberries and cherry. Cheers!

For people with a disability

An occupational therapist from the Independent Living Centre assessed the blenders for ease of use by people with a disability. Some features can make using a blender easier, depending on the type of disability, but no model stood out as having all the features required.

What to look for

- The **lid** should have a wide, overhanging ridge so you can easily take it off. It should be labelled on top with a caution notice that's easy to read.
- An **inner lid** should be comfortable to grip, and should remove or lock into position with an easy twist.
- The **handle** should be large, D-shaped and have a contrast strip for visibility.
- The **jug** should lock easily into position, requiring a simple, one-handed action to remove it.
- **Rubber feet** add stability to the motor base.

For more hints, see *What to look for*, far left.

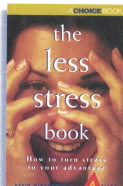
Controls should be large and easy to operate, labelling easy to read and the stop/off position stand out, as on these four. Clockwise from the left: Breville BLR2, Panasonic MXT1GP, Tiffany BL250 and Sunbeam Professional PB090.



The Less Stress Book

This is a down-to-earth guide to coping with, surviving and even flourishing on stress. It includes explanations, case studies, checklists and exercises to help you manage stress. Written by psychologists, it offers relevant, sensible, advice.

\$16 Code: LS8

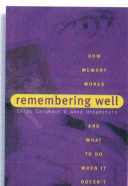


A CHOICE BOOK

Remembering Well

This book details how your memory works and changes, what you can do to cope with the changes, what affects your memory and what is and isn't 'normal'. It also includes useful exercises to help you develop your memory skills. Please note price increase of \$1.

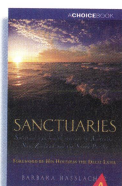
\$18 Code: RWEL



Sanctuaries

Here you'll find details of more than 400 retreat or health centres around Australia, New Zealand and the South Pacific. Ranging from religious settings and spiritual centres to health-orientated centres, each entry gives details about the spiritual focus of the centre, where it's located, how to make a booking and what it has to offer for individuals or groups.

\$18.18 Code: SANC



A CHOICE BOOK

Sustainable House

Learn how a family was able to renovate their inner-city house to make it environmentally friendly and almost completely self-sustaining in water and electricity while still being a comfortable home. *Sustainable House* includes practical advice for home owners, builders, architects and councils; a list of contacts and suppliers; and is extensively illustrated.

\$35 Code: SUSH

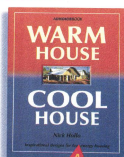


A CHOICE BOOK

Warm House Cool House

This is a comprehensive guide to low-energy house design for all climatic regions in Australia. It includes over 110 inspirational and beautiful Australian examples, plus colour photographs and house plans, and offers practical advice.

\$30 Code: WHCH



A CHOICE BOOK

Pool & Spa Owners Guide

Based on the Australian standards, this book explains what to look for when choosing a pool or spa, and how to keep the water clean and healthy. It includes advice on installation; selecting filtration and heating systems (including solar heating); guidelines for pool fencing; and answers to common questions about maintenance. Illustrated with easy-to-follow diagrams.

\$25 Code: PSOG

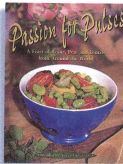


A CHOICE BOOK

Passion for Pulses

Pulses (beans, peas and lentils) taste good and are economical. They're high in protein, fibre, minerals and vitamins. As well as being a healthy part of any diet, pulses are suitable for people with cholesterol problems or who have diabetes or coeliac disease. This well-illustrated cookbook, with its range of recipes from all cuisines, will inspire those who want to include pulses in their diet.

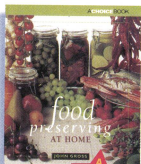
\$25 Code: PPF



Food Preserving at Home

Written for the Australian market, this book shows you many ways to preserve food safely. Take advantage of Australia's high-quality and bountiful produce with this helpful book.

\$27 Code: FPAH



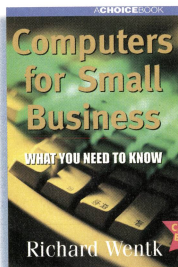
A CHOICE BOOK

newmedia.com.au

Australia has changed in many unexpected ways. *newmedia.com.au* explains where we are, where we might be going, and who or what the forces are behind the changing face of the communications industry. A fascinating overview of communications in Australia.

\$25 Code: NMCA

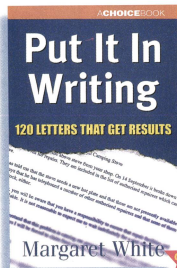




Computers for Small Business

In plain language, this book explains computers and software from the simplest and most straightforward technology to the most advanced. It includes advice about: producing professional-looking documents and advertising and promotional materials; keeping track of sales and client records; making GST and income tax calculations; and much more.

\$18.18 Code: CFSB

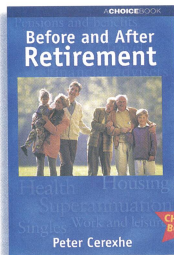


Put It In Writing

New edition

Put It In Writing contains 120 well-considered, cool and authoritative letters, written by a lawyer and designed to get the response you want. You can easily adapt each one to suit your particular problem. The letters are accompanied by practical advice about your rights in the situations involved, a list of useful contacts and a glossary of terms.

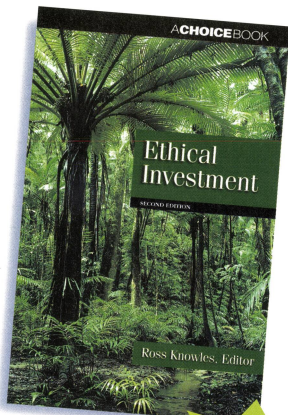
\$16.36 Code: PIW2



Before and After Retirement

Whether you're two years or two decades away from retirement you'll find this book useful. *Before and After Retirement* clearly explains retirement and related issues, and includes advice on finance, health, housing, volunteer activities, superannuation and tax.

\$25 Code: BAAR



Ethical Investment

SECOND EDITION

Edited by Ross Knowles

CHOICE Books is pleased to release a completely revised and updated edition of *Ethical Investment*, which is still the only book on this subject in Australia.

Money invested in banks, on the stockmarket, in superannuation or managed trusts is used by the organisation concerned to earn a return. It's invested in everything from housing and shopping centres to manufacturing, mining and agribusiness.

But are there alternatives for the concerned investor — someone who wants a reasonable return but does *not* want to support arms manufacture, the tobacco industry, uranium mining or companies that use child labour or clearfell tropical rainforests?

In *Ethical Investment*, the authors:

- Outline the options.
- Select criteria that can be considered when looking at ethical issues.
- Analyse the social and environmental performance of some Australian companies as examples.
- Detail and rate selected ethical investment funds as well as summarising their recent rates of return.

Ethical Investment shows how to go about investing ethically, what's available and where to find help and further information.

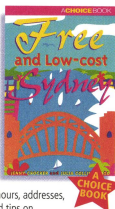
\$15.45 Code: ETI2

Free and Low-cost Sydney

New edition — revised and enlarged and featuring free and low-cost things to do before, during and after the Olympics and into 2001.

Keep the whole family entertained, informed, exercised, intrigued and inspired all year round. *Free and Low-cost Sydney* gives contact numbers (and websites), opening hours, addresses, charges (if any), maps and tips on transport for activities outside the CBD.

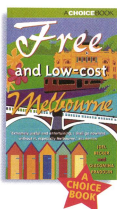
\$15 Code: FLS2



Free and Low-cost Melbourne

Free and Low-cost Melbourne shows you how to find cheap, fun and interesting activities in Melbourne. For each entry it gives contact numbers, opening hours, addresses, Melway grid references, charges (if any) and tips on transport for activities outside the CBD.

\$15 Code: FLCM



Sydney For Kids

Sydney for Kids has all the information you'll need to visit over 200 exciting venues in and around Sydney with a child. It includes details of how to get there, which age group will enjoy it most, prices, contact details and opening hours. Many free and cheap activities are also included.

\$15 Code: SFK



Building & Renovating on Time & on Budget

If you plan to build a new house or renovate your current one, this book will give you the advice you need. Written in an easy-to-read style, it covers choosing the right builder, the role of the owner-builder, building contracts, insurance, cost control, the proper sequence for different jobs, and disputes and complaints. It also has a glossary.

\$20 Code: BR0T



Eat Your Genes

Eat Your Genes looks at the UK experience of genetically modified foods, particularly how they've managed to become so widespread so quickly, yet so quietly.

If you worry about what you're putting into your body you need to read this book.

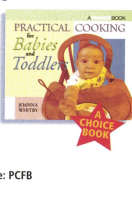
\$25 Code: EYG



Practical Cooking for Babies and Toddlers

Contains more than 100 delicious and nutritious recipes for babies over six months of age. Each recipe includes symbols showing the age group it's suitable for and whether it can be cooked in a microwave or frozen for later.

\$20 (Hardback) Code: PCFB



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CB/0005

Freeze!

Is your fridge doing the right thing, or are your vegies freezing and your ice cream melting? Our test of twelve 470–520 litre frost-free fridges shows what you can expect.

IT'S BEEN A SCORCHING DAY AND YOU shudder at the thought of a heavy hot meal — a cool, fresh salad is just the thing. You go to the fridge and get the vegies from the crisper — but oh no! They've turned into ice blocks that slowly melt into a soggy mess on the counter. Your fridge is too cold. On the other hand, you don't want one that's not cold enough or your food will go off.

Controlling temperature (and tempers)

It's important to get the temperature right in both compartments. Ideally the fresh-food compartment should be below 4°C and the freezer below -15°C (-18°C is recommended for many foods).

Our new temperature performance test looked at a fridge's ability to maintain consistent and uniform temperature combinations in both compartments with different external temperatures.

The MAYTAG Plus GT1727PACW was very good at superchilling the freezer without making the fresh-food compartment too cold, but when external temperatures dropped from 32°C to 10°C its freezer became too warm — meaning you need to set it colder in winter! The others were OK at handling external temperature changes, though some were limited in the temperatures you could choose, particularly the PANASONIC NR-B47AX8 and WESTINGHOUSE Mastermind BJ5055.

The NEC Surround Multi-Flow FR-516 is something new: it has an electronic 'fuzzy' control that lets the fridge set its own temperatures.

All the test fridges have two sets of controls, but they're often not the independent controls for each compartment that they appear to be. On many

fridges, one of them monitors the temperature in both compartments, while the other acts as a baffle, directing different amounts of cold air to each compartment. The electronic controls in the FISHER & PAYKEL and NEC in this test are an exception to this, giving relatively independent temperature control of the two compartments.

Keeping cool

Hanging out for the drinks to cool down on a hot day? As always, we tested the fridges for how fast they can cool down a large load of new groceries — in this case a large load of warm drink cans. The FISHER & PAYKEL Active Smart E521TRB coped very well. The NEC (which has a 'quick fridge' button for times like these), MAYTAG and KELVINATOR Opal Series N520F weren't far behind. The LG Express Cool GR-572TF was comparatively poor for fast cooling in the fresh-food compartment.

WHAT TO BUY

FISHER & PAYKEL Active Smart E521TRB (freezer on top)	\$1499
KELVINATOR Opal Series N520F (freezer on top)	\$1449
FISHER & PAYKEL Active Smart E522BRB (freezer on bottom)	\$1499



IN BRIEF

■ Some electronically controlled fridges give you independent temperature control of the fresh-food and freezer compartments. But not all in this test do, and unfortunately most manuals won't tell you whether the controls are independent.

Our tester's tip

To help keep ice cream from forming crystals, place a film of plastic wrap on the surface of the ice cream before replacing the container lid.

WHAT TO LOOK FOR



A chiller section with a separate temperature control lets you keep fresh fish and meat at the optimum temperature — close to freezing.



Some door shelves don't always stop the bottles tipping or falling out when you open the door.

■ **Size.** Allow at least a couple of centimetres at the sides, back and top of the fridge for air circulation. Check the manufacturer's recommendations and make sure the door opens in the right direction for your kitchen or is reversible.

■ **Frost-free or cyclic defrost.** All the fridges in this test are frost-free, which means you don't have to defrost them. Some cyclic-defrost models may be cheaper or quieter.

■ **Freezer.** Top-mounted freezers are still more popular and generally more energy-efficient.

Bottom-mounted freezers have convenient slide-out baskets, and allow easier access to the fresh-food compartment.

■ **Energy efficiency.** Consider long-term running costs as part of the purchase price. While the number of stars on the energy label helps compare models of the same size, pay particular attention to the kWh per year figure, which gives a more accurate indication (see note 6, page 39).

■ **Shelves.** Make sure you can arrange the shelves easily and without wasting space to fit your groceries, including tall items and bottles. If the fridge will be in a corner, make sure you can remove its shelves with the door open at a 90° angle.

■ **Moving and cleaning.** Look for rollers for easy moving, and brakes to keep the fridge in place. Check for smooth, easy-to-clean surfaces and avoid models with dirt traps. It'll be easier to find food and clean the fridge with a bright light.

Features and accessories

■ Look for a **chiller** if you need to store fresh meat and fish. Its temperature should be close to freezing and ideally it would have a separate temperature control (see photo, top).

■ A **chill zone** close to the cold-air outlets is handy for cooling drinks quickly, but food left there too long could freeze.

■ A **dairy compartment** keeps butter or hard cheese slightly soft for easy use.

■ **Crisper** drawers should be well sealed to keep vegetables fresh; check that the air outlets don't blow into them, as this will dry food out faster.

■ Also look for **ice trays** and other special containers you'd find particularly useful.

Electronic fridges — better control?

Some electronic fridges are much easier to use as they give relatively independent temperature control in the two compartments — in this test, the **FISHER & PAYKELS** and the **NEC**. The **NEC** also takes the guesswork out of getting the right temperature with a push of its 'fuzzy' button — but you may still need to adjust it for your personal preferences.

The **MITSUBISHI** and **WESTINGHOUSE** are also electronically controlled, but they have conventional temperature controls that don't allow fully independent temperature control for the two compartments.

How can you tell which model has independent controls when you're shopping around? Unfortunately, you can't — for the time being, only CHOICE tests tell you.

For people with a disability

An occupational therapist from the Independent Living Centre checked the fridges to see how easy they were to use by someone with a disability.

For people with poor vision

■ A good light and clearly marked controls are essential. The fridge with the best lighting and controls that are easy to see is the **WESTINGHOUSE Mastermind**.

■ Some electronic fridges, including the **FISHER & PAYKELS**, **WESTINGHOUSE** and **NEC**, sound a warning alarm if they're left open.

For people in wheelchairs

■ A bottom-mounted freezer, like the **WESTINGHOUSE** and **FISHER & PAYKEL E522BBR** have, tends to make using both compartments easier.

■ Those two fridges, along with the **MAYTAG**, also have handles running down the side of the doors, making them easier to open.

■ The **NEC**, **KELVINATOR** and **MAYTAG** are the only fridges with the controls in easy reach.

For people with weak or arthritic hands

■ Open-style handles like those on the **MAYTAG** and **KELVINATOR** are best.

■ Controls with large knobs or slide bars are easiest to manipulate.

■ Two small crisper drawers are easier to handle than a single large one (check the table, page 39, for which models have them), and pull-out compartments should be stable.

■ Avoid small and tightly spaced shelf guides.

For people with a bad back

■ If you use the freezer a lot it's better on top, but if you don't, go for a bottom-mounted one.

■ Temperature controls should be easy to reach without bending.

Recycling

■ No new fridges contain chlorofluorocarbons (CFCs), which are ozone-depleting gases. But disposing of old fridges — which may have CFCs in the cooling system and insulation — can still pose a problem.

In Australia, there's no law governing the removal of CFCs before disposal, because it's believed there's very little left once the fridge has broken down, as high CFC leakage is generally the cause. It's very expensive for an individual consumer to get CFCs removed.

■ The metal from fridges is recycled by scrap-metal merchants — who collect them directly from the tip.

■ Plastic from appliances is recycled in Europe, but not yet in Australia. One plastics recycler told CHOICE that because several different types of plastic are used it's necessary to separate them first, which is labour-intensive.

CHOICE would like to see the plastics industry and the manufacturers work together on a solution to this environmental issue.

The six top-performing fridges are profiled in rank order from left to right. Prices shown are a good target to aim for when shopping around, based on nationwide checks in February 2000.

Fisher & Paykel Active Smart E521TRB

Top-mounted freezer.

Target price: \$1499

Good points

- Good energy efficiency.
- The temperature controls for each compartment are relatively independent.
- Good for temperature uniformity.
- Good for crisper freshness.
- Good ease of use.
- Good storage versatility.
- One of the quieter fridges.
- Has electronic open-door alarm and fault-finding display.

Bad points

- Freezer can be set to -18°C but not much colder if you like to keep frozen food for longer.
- Bottle shelf retainers are unreliable for holding smaller bottles when you open the door.
- No chiller compartment.



Kelvinator Opal Series N520F

Top-mounted freezer.

Target price: \$1449

Good points

- Good energy efficiency.
- Good freezer temperature reserve (can achieve much colder than -20°C , without freezing fresh food).
- Very good for crisper freshness.
- Has a chiller compartment with a temperature control.

Bad points

- Some door shelves bend under weight.
- Limited shelf adjustability.



Fisher & Paykel Active Smart E522BRB

Bottom-mounted freezer.

Target price: \$1499

Good points

- Good crisper freshness.
- The temperature controls for each compartment are relatively independent.
- Good ease of use.
- Good overall storage versatility.
- One of the quieter fridges.
- Has electronic open-door alarm and fault-finding display.

Bad points

- Coldest freezer setting achieved was -18°C .
- The temperature varies quite a bit throughout the fresh-food compartment.
- Bottle shelf retainers are unreliable for holding smaller bottles when you open the door.
- No chiller compartment.



Samsung Cool Tech SR57NXA

Top-mounted freezer.

Target price: \$1249

Good points

- Good energy efficiency.
- Good freezer temperature reserve (can achieve much colder than -20°C , without freezing fresh food).
- One of the quieter fridges.
- Has a chiller.
- Has spring/easy-release ice trays.

Bad points

- The wording on the controls is confusing: 'COLD' is the warmer setting.
- Only fair crisper performance.
- Very limited shelf adjustability.
- No dairy compartment.



Maytag Plus GT1727PACW

Top-mounted freezer.

Target price: \$1499

Good points

- Very good for crisper freshness.
- Has split shelf arrangement, which means you can adjust the half shelf for extra height.
- Five-year warranty.

Bad points

- The door shelf for bottles is warmer than the main compartment.
- Some door shelves bend under weight.



Whirlpool WRN57HWG6

Top-mounted freezer.

Target price: \$1199

Good points

- Good energy efficiency.
- Good freezer temperature reserve (can achieve much colder than -20°C , without freezing fresh food).
- One of the quieter fridges.
- Has spring/easy-release ice trays.
- Has a chiller.

Bad points

- The wording on the controls is confusing: 'COLD' is the warmer setting.
- Poor crisper freshness.
- Very limited shelf adjustability.
- No dairy compartment.



What about the rest?

- The **NEC**, although a strong performer, was let down by its high energy use.
- The **WESTINGHOUSE** had a tendency to keep fresh food quite cold, and this limited how cold you could set the freezer.

- The **MITSUBISHI** had poor crisper freshness.
- The **PANASONIC** had a limited choice of temperature combinations.
- The **SHARP** and the **LG** were at the bottom of the heap for overall performance.

FROST-FREE FRIDGES, 470-520 L

Brand / model (in rank order)	Manufacturer / distributor	Origin	Target price (\$)*	Warranty (years)	Freezer	Measured dimensions (H x W x D; mm)**	Size (claimed gross volume, L)	1 Claimed gross / usable volume, fridge (L)	1 Claimed gross / usable volume, freezer (L)	Shelves removable when door open to 90°
FISHER & PAYKEL Active Smart ES21TRB	Fisher & Paykel	Australia	1499	1 (A)	Top	1700 x 790 x 710	517	400 / 301	117 / 88	All
KELVINATOR Opal Series N520F	Email	Australia	1449	1 (B)	Top	1670 x 800 x 785	520	389 / 330	130 / 93	All
FISHER & PAYKEL Active Smart ES22BRB	Fisher & Paykel	Australia	1499	1 (A)	Bottom	1695 x 795 x 700	519	360 / 266	159 / 103	All
MAYTAG Plus GT1727PACW	Maytag	US	1499	5 (C)	Top	1685 x 700 x 800	498	346 / 256	152 / 127	All
SAMSUNG Cool Tech SR57NXX	Samsung	Korea	1249	2 (D)	Top	1820 x 745 x 725	495	349 / 267	146 / 102	(J)
WHIRLPOOL WRN57HWG6	Whirlpool	Korea	1199	2 (D)	Top	1820 x 745 x 720	486	344 / 267	142 / 101	(J)
NEC Surround Multi-Flow FR-516R	NEC	Korea	1299	2 (E)	Top	1820 x 830 x 695	516	352 / 283	164 / 122	(K)
WESTINGHOUSE Mastermind BJ505S	Email	Australia	1549	1 (F)	Bottom	1695 x 795 x 715	502	316 / 241	186 / 124	(M)
MITSUBISHI Electric MR-508E-W-A	Mitsubishi	Thailand	1399	5 (C)	Top	1655 x 750 x 725	508	330 / 254	178 / 123	(K)
PANASONIC NR-B47AX8	Panasonic	Taiwan	1099	2 (D)	Top	1690 x 725 x 770	474	335 / 255	139 / 100	All
SHARP SJ51H-WH	Sharp	Thailand	1399	1 (G)	Top	1710 x 735 x 715	505	342 / 251	163 / 119	(N)
LG Express Cool GR-572TF	LG	Korea	1095	2 (H)	Top	1790 x 750 x 700	473	327 / 238	146 / 112	All

How reliable have our subscribers found them?

We asked a group of subscribers whether their fridge had needed repairing in the past 12 months and if they'd buy the same brand again.

There wasn't much difference in reliability between brands, and fridges are a fairly reliable appliance — only 10% overall had needed repair.

The graphs show the results for brands for which we received sufficient replies (the number in brackets tells you how many readers reported on the brand). The results include all types of fridges, not just those in this test.

Brand loyalty didn't follow reliability. The brand the most subscribers were likely to buy again, **FISHER & PAYKEL**, shared a repair rate with **HOOVER**, which came close to the bottom for brand loyalty. And the reason why 19% of **HOOVER** owners don't intend to buy the brand again? Noise.

For fridges up to three years old, subscribers reported the following problems significantly more often than average for these brands:

- Noise: **HOOVER** (14%), **KELVINATOR** (11%).
- Door seal: **FISHER & PAYKEL** (6%).
- Shelves: **SAMSUNG** (10%), **FISHER & PAYKEL** (3%).
- Control/thermostat: **KELVINATOR** (5%).
- Temperature: **KELVINATOR** (7%).
- Leaking gas/compressor: **WESTINGHOUSE** (3%).

Percentage not needing repair

(Differences of more than 7% are meaningful.)

All fridges (18,599)	90
Sharp (677)	95
Samsung (174)	92
Whirlpool (669)	92
Fisher & Paykel (5136)	90
Hoover (2037)	90
Kelvinator (2738)	90
Westinghouse (5880)	90
GE (666)	87
Amana/Kleenmaid (323)	85
Frigidaire (264)	85

These percentages have been statistically age-adjusted.

Percentage who would buy the same brand again

Fisher & Paykel (5190)	93
Westinghouse (5907)	90
Whirlpool (670)	90
GE (672)	88
Amana/Kleenmaid (323)	87
Kelvinator (2741)	86
Sharp (674)	86
Hoover (1839)	81
Samsung (171)	80
Frigidaire (257)	77

1 Claimed gross / measured usable volume

The volume quoted by the manufacturer tells you approximately how much air space the fridge has to cool. The *usable* space, which we measured, tells you how much space you have for food, including shelves, door shelves, crispers and so on.

Use the volumes to get an idea of how big the freezer is compared with the fresh-food compartment, so you can choose a fridge that meets your storage needs.

2 Door hinge position

R = on the right.

L = on the left.

R or L = it can be ordered as left or right and then can't be changed.

3 Features

See *What to look for*, page 36, for more on these.

4 Noise

This is the measured noise level of each fridge during normal running. More noise is produced when the compressor starts up and also during the defrost cycle. The design of your kitchen and the fridge's location also make a difference to what you'll hear. These models are all reasonably quiet, though you'd notice the difference between the quietest and the loudest. New fridges,

Refrigerator position	Chiller	Crisper drawers	Dairy compartment	Noise level (dB)	Claimed / measured energy use (kWh/year)	10-year running costs (£)	Cooling time (hr:min)	Performance score (%)	Ease of use score (%)	Overall score (%)	Brand / model (in rank order)
Reversible (P)	2	✓		36	680 / 631	757	3:20	79	77	79	FISHER & PAYKEL Active Smart ES21TRB
or L	✓ (T)	2	✓	40	649 / 676	811	3:53	77	65	75	KELVINATOR Opal Series NS20F
Reversible (P)	2	✓		37	790 / 813	976	4:57	69	77	71	FISHER & PAYKEL Active Smart ES22BRB
Reversible (P)	2	✓		42	700 / 702	842	3:44	70	60	68	MAYTAG Plus GT1727PACW
	✓	1		37	697 / 693	832	5:09	68	68	68	SAMSUNG Cool Tech SR57NXXA
	✓	1		37	640 / 645	774	4:58	68	68	68	WHIRLPOOL WRN57HWG6
	✓	2 (U)		38	1091 / 1013	1216	3:34	64	77	67	NEC Surround Multi-Flow FR-516R
or L	✓ (T)	2 (U)	✓	40	900 / 929	1115	5:47	59	81	63	WESTINGHOUSE Mastermind BJ5055
or L	✓	1		40	809 / 917	1100	4:57	60	70	62	MITSUBISHI Electric MR-508E-W-A
	✓	1		47	811 / 948	1138	5:14	58	73	61	PANASONIC NR-B47AX8
or L (S)	✓	1		38	840 / 874	1049	4:57	54	69	57	SHARP SJ51H-WH
	✓	2		38	650 / 712	854	8:44	51	66	54	LG Express Cool GR-572TF

equal

* Prices shown are a good target to aim for when shopping around, based on nationwide checks in February 2000.

** Measured dimensions include hinges and any protrusions at the back, such as the compressor, rounded to the next 5 mm. This is the actual size of the fridge; you need to leave space around the top, back and sides for air circulation (check the manual for how much).

(A) Warranty includes five years repair or replacement for sealed system and external pre-painted surfaces for corrosion; one-year warranty on the whole fridge increased to two years if you register by mail.

(B) The following four years, parts only for sealed system; five years repair/replacement of external painted surfaces for rusting; frozen food loss indemnity; plus extended warranty of one year parts and labour if you register by phone.

(C) Parts and labour.

(D) Parts and labour, plus an additional three years parts only on the sealed system.

(E) Parts and labour, plus an additional three years parts only on the compressor.

(F) Repair or replacement; the following four years parts only for sealed system; one-year food loss indemnity cover; one year on whole fridge increased to two years if you register by phone.

(G) Parts and labour, plus an additional four years parts only on the compressor.

(H) Repair or replacement; the following three years parts only for the sealed system.

(J) Fresh-food shelves need 100°.

(K) All except chiller.

(M) Some need 90°, some need 95°.

(N) Only freezer shelves and chiller drawer; the rest need more.

(P) With a service call or kit.

(Q) Fitted free as requested on delivery.

(S) You can order hinges on the right or left, and they're reversible with a service call.

(T) Has a separate temperature control.

(U) One wide and one narrow crisper.

particularly frost-free ones with fans, can appear noisier than other models.

5 Claimed / measured energy use

The energy tests indicate how much energy a fridge would use in a year to maintain an acceptable temperature. The claimed kWh figures are from the energy labels, which were generally derived using the old standard. CHOICE's measured energy is based on the newer 1997 standard.

6 Running costs over 10 years

The running cost is calculated from the energy used over 10 years, at a rate of 12 cents per kilowatt hour.

7 Cooling time

This test shows the fridge's ability to handle a difficult cooling job in the fresh-food compartment. We measured the time it takes to cool down a 20 kg load by 15°C on a hot day.

8 Performance score

Four factors were included in the performance score, weighted as follows:

- Temperature performance — the fridge's ability to manage basic cooling temperatures in all compartments: 30%.
- Energy efficiency: 30%.
- Cooling ability: 25%.
- How long the crisper would keep vegetables from drying out: 15%.

9 Ease of use score

The ease of use score consists of:

- Versatility of food storage, including adjustability of shelves and sizes of storing items of different shapes and sizes: 60%.
- Ease of cleaning: 30%.
- Ease of understanding and operating temperature controls: 10%.

10 Overall score

The overall score was based on performance and ease of use, weighted as follows:

- Performance: 80%.
- Ease of use: 20%.



Energy efficiency: with models of the same size, first find those with the most stars (maximum six), then compare their kWh numbers — the lower the better.

Dry in no time?

Need to get your clothes dried quickly, or has wet weather set in for the long haul? If you're thinking of buying a clothes dryer, find out here which are the quickest, most efficient and easiest to operate.



IN BRIEF

- Auto-sensing dryers tend to overdry clothes, which could damage them. But be careful not to set timer models for too long, which has the same effect as well as wasting energy.
- Not all models have features such as additional drying racks, ducted exhaust air and reverse tumbling, which may influence your choice.

BUYING A CLOTHES DRYER IS A simple matter of finding the fastest-drying one—right? Not really: it's also worth considering energy efficiency and how easy the filter is to clean.

CHOICE tested 16 dryers of different load capacities, all but one under \$500. Six are auto-sensing models that turn off when your clothes reach a preset level of dryness, and 10 are timer models, where you estimate the drying time required.

In the fast lane

The quickest-drying models are the **SIMPSON Sirocco 500**, **Sirocco 455** and **Sirocco 450**—they can whip the water out of your clothes in around 24 minutes per kilogram of washing. The slowest are the **HOOVER 5040ED** and **SIMPSON Sirocco 350**, which take around 30 minutes to dry each kilo. That means this **HOOVER** takes about half an hour longer than the **SIMPSON Sirocco 500** to dry its 5 kg of clothes.

All but one—the **FISHER & PAYKEL ED56-U**—of the six auto-sensing dryers overdried the clothes, which can damage them (see the table, page 42, for which the other auto-sensing models are). With most of them you can choose a different dryness level if you're not happy with the way your clothes come out, or just use them as a normal timer dryer. Only the **SIMPSON Sirocco 555** doesn't let you do this; it just has a button that lets you extend the drying time a little if you need to for heavy materials.

Although the scores for energy efficiency vary considerably between models, you don't really save much dollarwise. But if environmental issues are important to you, any reduction in power use is beneficial. The best model for energy efficiency was the **SIMPSON Sirocco 500**; the worst were the **HOOVER**

5050ED and **5040ED** and the **SIMPSON Sirocco 350**, all of which failed to meet the manufacturer's claimed star rating on the labels.

Fiddling with filters

All five **HOOVER** dryers are the easiest for accessing and cleaning the filter—it's on the outside of the door, easy to remove and refit, and you can even clean it while the dryer is running. The **FISHER & PAYKEL AD39** filter is also on the outside of the door, but it's difficult to remove and awkward to grip.

The **FISHER & PAYKEL ED55-U**, **ED56-U** and **AD55** also have filters that are easy to get to and clean, though they're on the inside of the door. On all these models the filter is easy to remove but fiddly to refit. The **KLEENMAID** filter is similar to the **FISHER & PAYKEL** models' but doesn't need to be removed and is very easy to clean.

The worst filters for cleaning and access are all on the **SIMPSON** dryers. They're inside at the back of the drum and are difficult to remove and refit. They're also made of thin plastic that's too soft and floppy to clean easily.

WHAT TO BUY

Timer dryers

KLEENMAID KED 300*	\$699
HOOVER 5030D	\$370
SIMPSON Sirocco 500	\$379

Auto-sensing dryers

FISHER & PAYKEL ED55-U	\$449
FISHER & PAYKEL ED56-U	\$449

* This dryer was initially tested for our New Zealand sister magazine, but is now available in Australia, so it's been included even though it's more expensive than our selected price range.

Dryers in the *What to buy* list are profiled in rank order from left to right. Prices shown are a good target to aim for when shopping around, based on nationwide checks in January 2000 or on information from the manufacturer.

Timer dryers

KLEENMAID KED 300

Target price: \$699

Capacity: 5 kg

Good points

- One of the best for energy efficiency.
- Reverse tumbling: the drum rotation is reversed at regular intervals to minimise

tangling and dry the load more evenly.

- The filter is easy to access and clean.

- Five-year warranty.

Bad points

- When the dryer is switched on it starts as soon as the door is closed, which could be a hazard if a child or pet climbed inside.
- You need to program two settings to dry the clothes to the 6% moisture level specified as ideal in the Australian standard.
- More expensive than the other dryers in the test.



HOOVER 5030D

Target price: \$370

Capacity: 5 kg

Good points

- Good energy efficiency.
- The filter is easy to access and clean.
- An optional external drying rack (for things like shoes) is available.

Bad points

- Mediocre score for drying time.
- Exhaust air can't be ducted away — out of the laundry window, for example.
- No reverse tumbling.



SIMPSON Sirocco 500

Target price: \$379

Capacity: 5 kg

Good points

- Fastest drying time.
- The most energy-efficient.
- Reverse tumbling.

Bad points

- The filter is inside at the back of the drum and is floppy and difficult to hold while cleaning.
- When the dryer is switched on it starts as soon as the door is closed, which could be a hazard if a child or pet climbed inside.



Auto-sensing dryers

FISHER & PAYKEL ED55-U

Target price: \$449

Capacity: 4.5 kg

Good points

- The filter is easy to access and clean.
- Optional internal drying rack (it remains stationary while the drum rotates, for things you don't want to tumble).
- Reverse tumbling.

Bad points

- Mediocre energy efficiency and drying time scores.
- Overdried clothes.



FISHER & PAYKEL ED56-U

Target price: \$449

Capacity: 4.5 kg

Good points

- The filter is easy to access and clean.
- Comes with an internal drying rack.
- Has delayed start, so you can program it to start when you like.
- Reverse tumbling.

Bad points

- Mediocre energy efficiency and drying time scores.



For people with a disability

An occupational therapist from the Independent Living Centre assessed the dryers to determine which would be most suitable for people with a disability. Important things to look for are:

- **Panel controls:** Look for controls that are clearly labelled, well spaced and easy to turn or push. Instructions in words are less confusing than symbols.
 - **Filter:** The filter should be easy to pull out and push back in, and make sure it's located on the door so you don't have to reach inside the dryer.
 - **Doors:** The door needs to be easy to open, with large roomy handles.
 - **Mounting:** You should be able to mount the dryer at a level that's easy to load and operate.
- The most suitable models with most of these features are the **FISHER & PAYKEL ED55-U** and **ED56-U**, **HOOVER 5040ED** and **5050ED**, all of which are auto-sensing dryers.

What about the rest?

- The **FISHER & PAYKEL AD55**, **HOOVER 3525D** and **3530D**, and **SIMPSON Sirocco 450** and **455** all scored relatively high overall, and would be worth considering if competitively priced, though cleaning the **SIMPSONs'** filter is a hassle.
- The **SIMPSON Sirocco 555** and **550** both had high scores for efficiency but were pretty mediocre for drying time, and shared the equal-lowest score for filter cleaning with other **SIMPSON** models.
- The **FISHER & PAYKEL AD39** had a similar overall score to the **SIMPSON Sirocco 555** and **550**, but did better for filter cleaning and worse for energy efficiency.
- The **HOOVER 5040ED** and **5050ED** both scored near the bottom for drying time and efficiency, but were equal best along with other **HOOVER** models for filter cleaning.
- The **SIMPSON Sirocco 350** had the lowest score for drying time and efficiency and equal-lowest for filter cleaning.

	Brand / model (in rank order)	Manufacturer / distributor	Origin	Target price (\$)*	Warranty (years)	Size (W x H x D; mm)	Drying cycle	Capacity (kg)	Drum material	Reverse tumbling
	KLEENMAID KED 300	Kleenmaid / St George	UK	699 (A)	5	595 x 845 x 560	Timer	5.0	Stainless steel / Colorbond (C)	✓
	HOOVER 5030D	Email	Australia	370	1	570 x 775 x 565	Timer	5.0	Stainless steel	
	SIMPSON Sirocco 500	Email	Australia	379	1	605 x 720 x 540	Timer	5.0	Stainless steel	✓
equal	FISHER & PAYKEL AD55	Fisher & Paykel	NZ	369	1 (B)	565 x 795 x 560	Timer	4.5	Stainless steel	✓
	SIMPSON Sirocco 450	Email	Australia	329	1	605 x 720 x 540	Timer	4.5	Colorbond	
	SIMPSON Sirocco 455	Email	Australia	349	1	605 x 720 x 540	Timer	4.5	Stainless steel	
equal	HOOVER 3525D	Email	Australia	295	1	570 x 775 x 460	Timer	3.5	Colorbond	
	HOOVER 3530D	Email	Australia	320	1	570 x 775 x 460	Timer	3.5	Stainless steel	
equal	FISHER & PAYKEL ED55-U	Fisher & Paykel	NZ	449	1 (B)	565 x 795 x 560	Auto-sensing	4.5	Stainless steel	✓
	FISHER & PAYKEL ED56-U	Fisher & Paykel	NZ	449	1 (B)	565 x 795 x 560	Auto-sensing	4.5	Stainless steel	✓
	FISHER & PAYKEL AD39	Fisher & Paykel	NZ	319	1 (B)	570 x 790 x 440	Timer	3.5	Colorbond	
equal	SIMPSON Sirocco 550	Email	Australia	439	1	600 x 720 x 530	Auto-sensing	5.0	Stainless steel	✓
	SIMPSON Sirocco 555	Email	Australia	469	1	600 x 720 x 530	Auto-sensing	5.0	Stainless steel	✓
	HOOVER 5050ED	Email	Australia	440	1	570 x 775 x 575	Auto-sensing	5.0	Stainless steel	✓
	HOOVER 5040ED	Email	Australia	400	1	570 x 775 x 575	Auto-sensing	5.0	Stainless steel	✓
	SIMPSON Sirocco 350	Email	Australia	299	1	605 x 720 x 465	Timer	3.5	Colorbond	

WHAT TO LOOK FOR

Selectable temperature settings:

These allow you to choose hot, warm or 'no heat' when drying your clothes. Dryers can have all three settings, or only one or two. Some auto-sensing dryers don't have manual temperature selection.

■ **Timer settings:** These let you set the length of time you want the dryer to run.

■ **Automatic dryness sensor:** On auto-sensing dryers, the dryer is automatically switched off when a sensor detects the load has reached a preset dryness level.

■ **Reverse tumbling:** The drum reverses the direction of rotation at regular intervals to minimise tangling while evenly drying your clothes. See column 3 in the table for which models have this.

■ **Crease protection:** Lets you choose a special 'no heat' cycle at the end of drying that reduces wrinkling in your clothes.

■ **Ducting:** An exhaust pipe can be connected to the dryer if it has a rear air exhaust (and in this test to the **KLEENMAID** too), to direct heated air outside, reducing condensation in the room.

■ **Key lock:** This prevents the dryer from being accidentally switched off, or the selections being altered while the dryer is running.

■ **Safety overheat switch:** When the temperature in the dryer goes over the preset limit, this switch cuts off the power and reduces the risk of fire caused by overheating.

■ **Delayed start:** You can program the dryer to start at a later time.

How reliable have subscribers found them?

We asked a group of CHOICE subscribers about their clothes dryers: whether they'd had to have them repaired in the previous 12 months and if they would buy the same brand again.

Only 12% of respondents had needed to have their dryer repaired in that time; 93% would buy the same brand again.

The graphs below show the results for the brands for which we received sufficient answers (the number in brackets tells you how many readers reported on the brand). We don't have reliability data for all brands on the market, and some brands may be included in the reliability figures that aren't in this test.

Percentage not needing repair

Fisher & Paykel (258)	96
Hoover (1065)	92
Westinghouse (83)	92
General Electric (80)	91
Whirlpool (77)	88
Kelvinator (74)	87
Simpson (1131)	82

Percentage who would buy the same brand again

Fisher & Paykel (263)	98
Hoover (1059)	94
Simpson (1139)	93
Whirlpool (72)	93
Kelvinator (73)	92
Westinghouse (86)	92
General Electric (80)	86



Drying rack: An external rack in front of the dryer lets you dry extra items using the warm exhaust air (this isn't possible with ducted models). An internal rack can be mounted inside some models and is useful for items that are best dried without tumbling (like shoes and hats).

4	5	5	6	7	8	9	10	11	
Drying rack	Air exhaust location	Ducting kit	Filter location	10-year running costs (\$/kg)	Drying time score (%)	Energy efficiency score (%)	Filter cleaning score (%)	Overall score (%)	Brand / model (in rank order)
X	Front	Optional	Inside door	161	72	75	75	74	KLEENMAID KED 300
Optional (D)	Front	X	Outside door	164	62	73	80	72	HOOVER 5030D
Optional (E)	Rear	Optional	Inside rear	156	83	79	50	71	SIMPSON Sirocco 500
Optional (E)	Rear	Optional	Inside door	170	67	69	70	69	FISHER & PAYKEL AD55
Optional (E)	Rear	Optional	Inside rear	162	81	75	50	69	SIMPSON Sirocco 450
Optional (E)	Rear	Optional	Inside rear	162	81	75	50	69	SIMPSON Sirocco 455
Optional (D)	Front	X	Outside door	175	59	65	80	68	HOOVER 3525D
Optional (D)	Front	X	Outside door	175	59	65	80	68	HOOVER 3530D
Optional (E)	Rear	Optional	Inside door	158	63	65	70	66	FISHER & PAYKEL ED55-U
Supplied (E)	Rear	Optional	Inside door	158	63	65	70	66	FISHER & PAYKEL ED56-U
X	Front	X	Outside door	176	62	64	65	64	FISHER & PAYKEL AD39
Optional	Rear	Optional	Inside rear	148	65	74	50	63	SIMPSON Sirocco 550
Optional	Rear	Optional	Inside rear	148	65	74	50	63	SIMPSON Sirocco 555
Supplied (D)	Front	X	Outside door	177	59	49	80	63	HOOVER 5050ED
Optional (D)	Front	X	Outside door	174	51	52	80	61	HOOVER 5040ED
X	Rear	Optional	Inside rear	195	50	49	50	50	SIMPSON Sirocco 350

* Prices shown are a good target to aim for when shopping around, based on nationwide checks in January 2000 or on information from the manufacturer.

(A) This dryer was originally tested for our NZ counterparts but is now available in Australia. We've included its results even though its price is higher than the range we chose for the other models.

(B) One additional year's warranty if you send back the supplied Smart Care card.

(C) Stainless steel drum with Colorbond rear wall and plastic ribs.

(D) External rack.

(E) Internal rack.

1 Drying cycle

The auto-sensing models have a sensor that stops the drying cycle when the load reaches a preset level of dryness. Apart from the **SIMPSON Sirocco 555** and **Sirocco 550**, the auto-sensing dryers can also be run on timer cycles.

2 Drum material

Drums can be made of stainless steel, Colorbond or a combination of both. Stainless steel tends to be dearer but our previous tests have shown both materials are equally durable.

3 Reverse tumbling

See *What to look for*, left.

4 Drying rack

See *What to look for*, left.

5 Air exhaust location/ducting kit

See *What to look for*, left.

6 Filter location

The best filter locations are outside or inside the door. Filters situated at the back, inside the dryer, are harder to get at.

7 10-year running costs

Because the models have different capacities, we calculated the running costs on a per kilogram

basis, to allow for a direct comparison. Multiply this figure by the dryer's capacity in kilograms to get an idea of the actual 10-year running costs. The energy consumption calculation is based on 150 full loads per year for 10 years at 12 cents per kWh.

8 Drying time score

This score is based on how long a dryer took to dry a kilogram of washing, as tested under the latest Australian standard. Each model was given a load that matched its capacity.

9 Energy efficiency score

This score is based on the energy used to dry

each kilogram of washing, as tested under the latest Australian standard. Each model was given a load that matched its capacity.

10 Filter cleaning score

We assessed the accessibility and ease of cleaning the filters, weighting the two aspects equally.

11 Overall score

This was calculated by combining the above three scores, weighted equally.

Efficiency tips

A dryer is useful when it's not practical to dry your washing on the line. But if you're not in a hurry and it isn't raining, the sun is the most efficient method economically and environmentally.

If you use a dryer, try the following tips:

- Remove as much moisture as possible from your washing before you put it into the dryer. Spin garments at the highest suitable speed in the washing machine beforehand.
- Don't dry just a tea towel or a few items on their own; put a full load through at a time. But

don't overload, either, as it'll take much longer and use more energy.

■ Separate clothes according to whether they're lightweight or heavy, as they'll need different drying times.

■ Shake out clothes first and load them individually to maximise heat circulation.

■ Avoid overdrying. Try setting the dryer for less time and check the clothes regularly.

■ After each load leave the door open to remove residual moisture. Also clean the filter each time, as lint build-up overworks the dryer and can pose a fire hazard.

The cold: gone with the wind?

A portable fan heater is a popular remedy for cold feet or warming small rooms. We put 19 models to the test.

IN BRIEF

■ Upright fan heaters outperformed horizontal ('flat') models in this test. All the flat units also had metal grilles at the front that can get dangerously hot and burn you if you touch them.

■ Heating performance didn't relate to wattage or outlet air speed, so you don't need to get blown away to have an effective fan heater.

YOU'D ONLY TRY TO HEAT A PRETTY small room, or even just your feet, with a portable fan heater. While these popular appliances can supply heat almost instantaneously, they're only capable of chasing the chill from a relatively small area.

However, that's often one of the attractions of a smaller heater. In a climate such as most of Australia's, a bit of personal warmth may be all that's needed, without heating the rest of the house. Your little box of hot air can always be picked up and transported from one chilly location to another, and it's not going to set you back by too many dollars.

A good fan heater ideally measures up to fairly straightforward criteria: it should be simple and safe to operate, not too noisy and, obviously, it should be good at keeping you warm.

Keeping you warm

The EWT Duo 250 TS came top for heating, recording the highest room temperature rise after 10 minutes and maintaining a very consistent temperature throughout our small test room.

Interestingly, results indicate no correlation between the wattage of heaters and the average temperature rise, and the outlet air speed doesn't appear to relate to temperature consistency. The DIMPLEX EF9, the model with the slowest outlet air speed, was among the better heating performers, and the OMEGA 3402FH, which blows the strongest gale, one of the worst.

So if you find figures for wattage or outlet air speed quoted on heater boxes when you're shopping around, they're not much use in helping you choose.



Not too loud?

If you want to get warm quietly, the top-ranking EWT Duo 250 TS might not be your best bet. It's considerably louder than the quietest model, the MISTRAL MFH 40, with only the GOLDAIR BHG-1600 being louder. While there's little between the majority of models, the noisiest heaters are noticeably louder than the whisper level of the MISTRAL.

Some safety concerns

■ We covered the inlet and outlet of all the heaters with a dry bath towel to see if any would cause it to ignite. None did.

■ The outside surface temperatures of all the heaters after running for some time are acceptable — below 40°C. However, the temperature of the front grille exceeds 100°C for the majority of the units with a metal grille. If your skin touched it at this temperature it'd burn within a fraction of a second. The worst heater in this regard, the KAMBROOK TH61, measured 155.8°C.

So if you're likely to have children playing around the heater it might be wise to choose a model with a plastic grille. The DIMPLEX EF9 (47.5°C) and the EWT Duo 250 TS (57°C) had the coolest grilles in this test. Only one heater with a plastic grille exceeded 100°C — the IXL Nipper 73040.

■ You can get upright and flat fan heaters, and the upright models performed the best in our test. Clearly, however, they're more susceptible to tipping over. Four models have a tilt protector switch (see *Profiles*, right), which automatically turns the heater off if it falls over. Others continue to heat for a short period before either shutting down or cycling on and off. None poses a safety hazard.

WHAT TO BUY

EWT Duo 250 TS	\$89
EWT Clima 343 TS	\$37
MISTRAL MFH 40	\$50
EWT Clima 584 TLS	\$69
EWT Clima 544 TLS	\$55
EWT Clima 383 TS	\$55
DIMPLEX EF9	\$65
KAMBROOK TH60	\$30

**BEST
BUY**



EWT Duo 250 TS

Target price: \$89

Good points

- Best heating performance, including the lowest room temperature variation.
- One of the easiest to use.
- Tilt protector switch.
- Sideways oscillation.
- Adjustable tilt.
- Frost-watch feature (see *What to look for*, page 46).
- Cord storage.
- Good handle size.
- Low temperature on both front grille and air outlet.

Bad points

- One of the noisiest models.
- Borderline stability — back-heavy.
- No power-on light.



EWT Clima 343 TS

Target price: \$37

Good points

- One of the easiest to use.
- Among the quieter models.
- Frost-watch feature.

Bad points

- Borderline stability — back-heavy.
- No power-on light.
- No cord storage.

BEST BUY



MISTRAL MFH 40

Target price: \$50

Good points

- The quietest heater in the test.
- Audible heat-up alarm if it overheats.
- Power-on light
- Cord storage.
- Three-year warranty.

Bad points

- Borderline stability — front-heavy
- Narrow, shallow handle.



EWT Clima 584 TLS

Target price: \$69

Good points

- One of the easiest to use.
- Tilt protector switch.
- Sideways oscillation.
- Frost-watch feature.
- Cord storage (but doesn't take full cord length).
- Good handle.
- Second-best stability for upright models.

Bad points

- Power-on light.
- None to mention.



EWT Clima 544 TLS

Target price: \$55

Good points

- One of the easiest to use.
- Power-on light.
- Frost-watch feature.
- Cord storage (but doesn't take full cord length).
- Good handle.

Bad points

- None to mention.



EWT Clima 383 TS

Target price: \$55

Good points

- Tilt protector switch.
- Frost-watch feature.
- Most stable upright unit.
- Sideways oscillation.
- Cord storage (but doesn't take full cord length).

Bad points

- No power-on light.
- Narrow, shallow handle.



DIMPLEX EF9

Target price: \$65

Good points

- Lowest temperature of all models of front grille and air outlet.
- ### Bad points
- Borderline stability — front-heavy.
 - No power-on light.
 - No cord storage.
 - Controls are difficult to read.
 - Narrow, shallow handle.



KAMBROOK TH60

Target price: \$30

Good points

- Equal second-quietest heater.
- Can wrap cord around base for storage.

Bad points

- No thermostat, so you have to switch it on and off to maintain the temperature you want.
- Poor stability — back-heavy.
- No handle.
- No power-on light.

FAN HEATERS

						1			2			3			4
Brand / model (in rank order)		Manufacturer / distributor	Origin	Warranty (years)	Target price (\$)*	Wall mountable	Upright or flat	Power cord length (mm)	Thermostat	Cooling fan	Frost-watch feature				
equal	EWT Duo 250 TS	EWT Heating	Germany	2	89		U	2590	✓ (C)	✓					
	EWT Clima 343 TS BEST BUY	EWT Heating	Germany	2	37		U	2660	✓ (C)	✓	✓				
	MISTRAL MFH 40	Mistral	China	3	50		U	2840	✓ (C)	✓					
equal	EWT Clima 584 TLS	EWT Heating	Germany	2	69	✓	U	2970	✓ (C)	✓	✓				
	EWT Clima 544 TLS	EWT Heating	Germany	2	55		U	2670	✓ (C)	✓	✓				
	EWT Clima 383 TS	EWT Heating	Germany	2	55		U	2960	✓ (C)	✓	✓				
	DIMPLEX EF9	Dimplex	Ireland	2	65		U	2670	✓ (C)	✓					
	KAMBROOK TH60	Kambrook	China	1	30		U	2780		✓					
equal	DELONGHI HVM02 (A)	Parex Industries	Italy	1	59	✓	U	2910	✓ (D)	✓	✓				
	GOLDAIR BHG-1600	Houseware International	China	1	34		U	2710		✓					
	IXL Nipper 73040	Backwell IXL	Australia	2	129	✓	U	2760	✓ (D)						
equal	MARTEC MHF 3501	Martec	Not stated	1	55	✓	U	2930	✓ (C)	✓					
	GOLDAIR 3253 (B)	Houseware International	China	1	69		F	1730	✓ (C)	✓	✓				
equal	KAMBROOK TH61	Kambrook	China	1	36		F	2800		✓					
	EWT Clima 19 TL	EWT Heating	Germany	2	79		F	3140	✓ (C)	✓	✓				
	EWT Clima 44 TS	EWT Heating	Germany	1	39		F	2860	✓ (C)	✓	✓				
	RINGGRIP RFH 25	Mistral	China	3	33		F	2900		✓					
	HELLER FH 040	GAF Control	China	1	30		F	2860							
	OMEGA 3402FH	Omega Appliances	China	1	30		F	2830	✓ (C)						

* Prices shown are based on manufacturer information in March 2000 or price paid.

(A) According to the manufacturer, this model has been replaced by the DeLonghi HVE 332 and HTE 332, which are similar but have a plastic instead of a metal housing.

(B) According to the manufacturer, this model has been replaced by the Goldair 3263T

but changes only affect the heater's external appearance.

(C) The thermostat is adjustable on all heat settings.

(D) You can only adjust the thermostat on the high heat setting.

(E) Tilt protector switch not mentioned in instructions, but heater turns off when tilted.

WHAT TO LOOK FOR

■ **Thermostat.** Models with a thermostat let you adjust heat settings, switching on and off to maintain the room temperature you want. Most fan heaters have one; if they don't (see the table,

above) you have to turn the heater off if the room gets too warm.

■ **Power-on light.** With some models, a light only comes on while the unit is heating (that is, it indicates the thermostat is working). You might go out and leave the heater switched on if there's no light to show it's on. See the profiles, page 45, for which models in the *What to buy* list have a power-on light.

■ **Tilt protector switch.** This safety feature turns off the power if the heater falls over or tilts. Although most heaters have an overheating safety device, the tilt switch provides extra peace of mind.

■ **Cooling fan.** Most models have a 'cool' setting (actually just a fan), which can be handy in summer. Some of the larger units with automatic oscillation (see below) are just as good as a cooling fan.

■ **Automatic oscillation.** The heater can turn from side to side, which helps distribute the heat.

■ **Frost-watch.** This feature is designed to automatically turn the heater on when the ambient temperature drops below a certain level (usually 5°C).

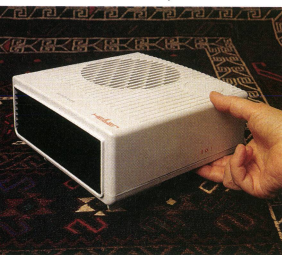
■ **Wall-mounting.** If you don't plan on moving your heater around, wall-mounting may be a useful option to keep it out of the way. Some models allow easy mounting/dismounting, but take care to read the instructions.

■ **Tilt adjust.** This gives you more control over where you'd like to aim the heated airflow in the up/down direction.

■ **Metal/plastic grille.** Hot metal grilles cause pain faster than plastic ones at the same temperature. See note 8, right, for more on this.

■ **Handle.** To be truly portable, a fan heater should have a handle to help you carry it.

■ **Power cord storage.** You should be able to store the power cord somewhere on the heater so it doesn't get in the way when you're carrying it around or storing it.



Check the controls are easy to get at when you're shopping around — on the Heller FH 040, for example, they're very awkward to reach.

5	6	7	8	9	10	11	12	
Swivel adjust and oscillation	Tilt adjust	Tilt protector switch	Grille temperature score (%)	Noise score (%)	Ease of use score (%)	Heating performance score (%)	Overall score (%)	Brand / model (in rank order)
✓	✓	✓	80	60	80	81	75	EWT Duo 250 TS
			70	77	80	70	74	EWT Clima 343 TS
			60	87	78	66	74	MISTRAL MFH 40
✓		✓	70	70	80	72	73	EWT Clima 584 TLS
			70	70	80	68	72	EWT Clima 544 TLS
✓		✓	60	77	80	65	71	EWT Clima 383 TS
			90	70	68	68	71	DIMPLEX EF9
			60	80	76	64	70	KAMBROOK TH60
			40	80	68	67	67	DELONGHI HVM02
			60	53	78	64	65	GOLDAIR BHG-1600
		✓ (E)	20	70	84	52	61	IXL Nipper 73040
	✓		70	73	52	55	61	MARTEC MHF 3501
	✓		20	70	74	54	60	GOLDAIR 3253
			20	77	76	48	60	KAMBROOK TH61
			20	70	84	40	56	EWT Clima 19 TL
			20	70	68	48	56	EWT Clima 44 TS
			20	63	78	44	55	RINGGRIP RFH 25
			20	67	46	52	52	HELLER FH 040
			20	67	46	50	51	OMEGA 3402FH

1 Upright or flat

The fan heaters in this test were either upright (U), like all the models in the *What to buy* list, or of a flat/horizontal (F) design that gives greater stability but produced poorer heating performance scores in this test.

2 Thermostat

See *What to look for*, left, for the benefits of having a heater with a thermostat.

3 Cooling fan

Models marked with a tick can also be used as a cooling fan.

4 Frost-watch feature

See *What to look for*, left.

5 Swivel adjust and oscillation

Models with a tick can be adjusted left to right, and the fan oscillates automatically. You can, however, stop the fan oscillating if you wish to point it in a particular direction.

6 Tilt adjust

The heater can tilt up or down for better direction of the hot air.

7 Tilt protector switch

A tilt protector switch automatically turns the heater off if it tips over.

8 Grille temperature score

Some heater grilles can get hot enough to burn you if accidentally touched. Plastic grilles have lower temperatures than metal grilles, which might be a consideration if you have crawling children. We used a British Standards Institution guideline detailing human reaction to skin contact with

hot surfaces to produce a score, based on the measured grille temperatures of these models, the type of material of the grille and the length of contact required at that temperature to burn the skin.

9 Noise score

Noise readings were taken from a distance of one metre away, both horizontally and vertically, from the front of the heater. The quietest, which score the highest, are no louder than a whisper.

10 Ease of use score

Heaters were scored for ease of using their controls (60%) and for labelling (40%). Most models were straightforward to use. However, the **MARTEC MHF 3501** had the least intuitive controls and the **DIMPLEX EF9** was poorly labelled, with markings imprinted on the controls with no colour contrast.

11 Heating performance score

We measured how quickly each model heated up a small test room; this contributed 60% to the final heating performance score.

We also looked at the ability of each heater to keep temperatures stable and comfortable. The average temperature rise was recorded in the test room after 10 minutes over a number of different measuring points. This was 40% of the heating performance score.

12 Overall score

The overall score is a combination of grille temperature, noise, ease of use and heating performance scores, weighted as follows:

- Grille temperature: 10%.
- Noise: 25%.
- Ease of use: 25%.
- Performance: 40%.

● RECALLS & BANS

If you find a recall or ban not on our list, please let us know. Companies often rent 1800 numbers for a couple of months after the recall is announced. If the number given is no longer operating, phone the manufacturer or retailer direct. For up-to-the-minute information, check our recalls list by clicking the recalls banner at www.choice.com.au.

THE PRODUCT: Sony has recalled **Infolithium battery packs**, manufactured from March 1999 to June 1999 and only sold as an accessory for video cameras, digital still cameras and the Sony Video-Walkman. The affected batches fall within the battery model numbers NP-F550 and NP-F750, and the following characters will be in the third and fourth position of the batch number:

- NP-F550: 9D, 9E or 9F.
- NP-F750: 9C, 9D, 9E or 9F.

The problem: The batteries may overheat while being recharged, deforming the battery pack and potentially burning skin on contact.

What to do: Don't use the affected batteries. Contact Sony on 1800 818 444 between 8.30 am and 5 pm Monday to Friday and arrangements will be made to replace the battery free of charge.

THE PRODUCT: Pauls has recalled **Breaka Chocolate UHT Milk**, 250 mL single and 6x250 mL multi packs, with the following use-by dates:

- 21/9/2000.
- 22/9/2000.
- 23/9/2000.

The problem: Some packs may be faulty, allowing air to enter and causing the contents to spoil.

What to do: Don't drink the milk. If you have and are concerned about your health, contact your doctor. The product should be returned to the point of purchase for a full refund. For further information, contact Pauls on 1800 676 961.

THE PRODUCT: Auslinx has recalled **ABC V90 56K external modems** with serial numbers between 914-07001665 and 941-03100000, supplied to shops in NSW, Queensland and Victoria between November 1998 and September 1999.

The problem: Despite labelling to the contrary, the modem failed to meet one of the relevant standards for use in Australia. If there's a power surge while you're using it, it could expose you to

danger and/or damage your computer or the phone network infrastructure.

What to do: If you have one of these modems, unplug it immediately and return it to the shop where you bought it or to Auslinx for a full refund or suitable replacement modem. For further information, contact Auslinx on 1300 655 675.

THE PRODUCT: On March 20 and 21, 2000, **Herron Pharmaceuticals** recalled all **Herron paracetamol products**, all **house-brand paracetamol products** manufactured by Herron and **Herron OsteoEze**, sold at supermarkets and pharmacies throughout Australia. The following products of any batch number available on the above dates are included in the recall:

- **Herron Paracetamol** 500 mg tablets 12s, 24s, 96s, AUST R No: 63630.
- **Herron Paracetamol** tablets 4s, 12s, 24s, AUST R No: 63629.
- **Herron Paracetamol** capsules 12s, 24s, AUST R No: 61739.
- **Herron Paracetamol** tablets 250s, AUST R No: 10161.
- **Herron Paracetamol** Handy Pack 4s, AUST R No: 63629.
- **Herron OsteoEze** capsules 96s, AUST R No: 67715.
- **Savings Paracetamol** tablets 24s, AUST R No: 64025.
- **No Frills Paracetamol** tablets 24s, AUST R No: 64154.
- **No Frills Paracetamol** 500 mg tablets, AUST R No: 13251.
- **Black & Gold Paracetamol** tablets 24s, AUST R No: 64153.
- **Bi-Lo Paracetamol** tablets 24s, AUST R No: 64156.
- **Home Brand Paracetamol** capsules 24s, AUST R No: 70827.
- **No Name Paracetamol** tablets 24s, AUST R No: 64155.
- **Guardian Paracetamol** 500 mg capsules, AUST R No: 58246.

The following products with specific batch numbers are also recalled:

- **Accidental Rapatabs Paracetamol** 500 mg tablets, AUST R No: 64026. Batch numbers: 43645, 42727, 42821, 41140, 39901 and 39330.
- **Alpha First Aid Supplies Paracetamol** 500 mg tablets, AUST R No: 66303 — batch number 43646.
- **Industrial First Aid Paracetamol** 500 mg tablets, AUST R No: 64152 — batch number 39904.

The problem: There was an incident of suspected product tampering.

What to do: Don't take any of these products. If you've taken them and are concerned about your health, see your doctor. Return any of the above products to the place of purchase for a refund. For further information, call the Herron consumer hotline on 1800 771 133, except for the following paracetamol brands under recall, which have separate hotline numbers:

- Guardian: 1800 808 610.
- Industrial First Aid: 1300 361 899.
- Accidental First Aid: 02 9672 1855.
- Alpha First Aid: 07 3341 8033.

THE PRODUCT: Taubmans has recalled **White Knight Cold Gd paint**, 1 L and 4 L containers, with the following batch numbers:

- 404369.
- 404370.

The problem: The product is experiencing 'gassing'. This creates pressure in the container, leading to the possibility of the lid popping open unexpectedly and some paint spilling out.

What to do: Don't use or try to open the product. Contact Taubmans customer service on 13 16 86 and a Taubmans representative will collect the product and offer a refund or replacement.

THE PRODUCT: Nissan has recalled **Y61 Patrol vehicles** with the following VIN numbers:

■ **Recall 1:**

Cab-chassis: JN1UCLY61A0 500101 to 501856; JN1UCNY61A0 000101 to 003161. (December 1998–January 2000.)

Wagon: JN1TBSY61A0 100001 to 115009; JN1TCSY61A0 100001 to 113708; JN1TDSY61A0 100001 to 115705. (March 1997–January 2000.)

■ **Recall 2:**

Cab-chassis: JN1UCLY61A0 500780 to 501636; JN1UCNY61A0 001041 to 002904. (March 1999–January 2000.)

Wagon: JN1TBSY61A0 113027 to 114988; JN1TCSY61A0 110720 to 113692; JN1TDSY61A0 114302 to 115700. (March 1999–January 2000.)

■ **Recall 3:**

Cab-chassis: JN1UCLY61A0 500101 to 501592; JN1UCNY61A0 000101 to 002847. (December 1998–November 1999.)

The VIN is located on the chassis in the area of the driver's door.

The problems:

Recall 1: The lock-nut securing the front steering linkage ('drag link') may loosen in severe driving such as off-road or harsh unmade-road conditions. This could ultimately lead to disengagement and loss of steering control. The drag link should be replaced with a newly designed part.

Recall 2: The brake pedal pivot pin may be faulty and the brake pedal needs to be checked for correct installation.

Recall 3: The under-body covers may collect unwanted, possibly flammable, materials in certain off-road driving conditions and should be removed.

What to do: Drive with caution and avoid severe conditions or long grassed areas before rectification. Owners have been notified by mail, but owners who haven't received a letter should contact any Nissan dealer to arrange immediate rectification free of charge. For further details call Nissan's customer information line on 1800 035 035.

THE PRODUCT: Yamaha has recalled **YZF-R1 K** and **L** (1998 and 1999 models) and **YZF-R6 L** and **M** (1999 and some 2000 models) **motorcycles** with the following serial numbers:

- **YZF-R1** — RN015-000004 to RN015-001783.
- **YZF-R6** — RJ035-000005 to RJ035-001043.

The serial number is on the steering head.

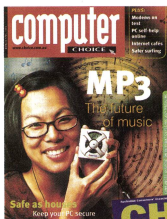
The problems: 1. The screws holding the side-stand switch may loosen and fall out due to engine heat and vibration. This would prevent the switch from working properly and allow the bike to move off with the stand in the down position. Also, should the side stand make contact with the road while the bike is being ridden, the rider could lose control. 2. The brake pad material may be susceptible to corrosion and may separate from the backing plate.

What to do: The bike may be ridden, but owners should contact a Yamaha dealer without delay to arrange replacement of the screws and brake pad, free of charge. For further information, contact your Yamaha dealer or the Yamaha service department in your state:

- NSW/ACT: (02) 957 0011.
- Victoria/Tasmania: (03) 9702 4400.
- Queensland: (07) 3399 0888.
- SA/NT: (08) 8359 0155.
- WA: (08) 9455 4544.

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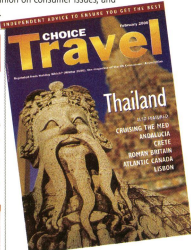
Night-eating syndrome better described

About 15 years ago, obesity became a household name. A condition where people had no apparent reason for eating so much during the night and fast food eating, usually when alone.

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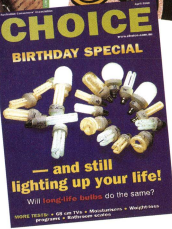
The condition is often associated with weight gain, but it can also lead to other health problems, such as depression and anxiety. It's a condition that is often misunderstood, and it's important to seek professional help if you suspect you have it.

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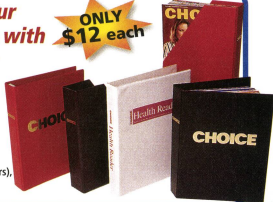
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CHOICE

Home page



How do you tell if an iron's any good? By using it — and that's what our trialists did for our upcoming test report.

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The Australian Consumers' Association is a non-profit, non-party-political organisation, established in 1959 to provide consumers with information and advice on goods, services, health and personal finances, and to help maintain and enhance the quality of life for consumers. It is a Council member of Consumers International.

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June 1999 — May 2000

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Bold type indicates a test, survey or trial report, normal type indicates other articles.
 * Indicates an update of a previous report, additions or corrections to reports, small follow-up items or letters.
 For space reasons, the index generally doesn't include Choice Cuts, many other small pieces, and Recalls and Bans.

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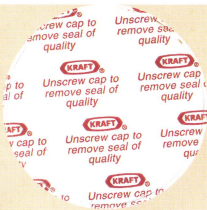
HEAT RESISTANT



Protects the surface from Hot pots & Pans

Seal of stupidity

The pictured 'seal of quality' appeared under the cap of a jar of Kraft grated parmesan cheese. Thanks for the tip, Kraft.



4. Do not use this product near water; for example, near a bath tub, wash bowl, kitchen sink or laundry tub, in a wet basement, or near a swimming pool.

Yes! Optus

No doubt Optus is thrilled that this ad for a Vodafone service provided a little free advertising.



Dive in and dial up

With Kieren Perkins peering out from your new cordless phone's packaging, enjoying a chat between laps, you'd think you could take your purchase poolside... if you don't read the safety instructions, that is. He and the ad agency obviously didn't.



Furby

- Truly lifelike! Senses! Sees! Feels! Hears!
- Learn to speak Furbyish and teach your Furby English • 6 different fur patterns and 4 different eye colours make each Furby unique! 601-9996

Furby English • 6 different fur patterns and 4 different eye colours make each Furby unique! 601-9996

Cold comfort

So which piece of advice from the packaging of this 'heat resistant' cutting board should you follow?

"DO NOT PLACE HOT ITEMS FROM THE STOVE OR OVEN DIRECTLY ON TO THE CUTTING BOARD"

Few and Fur-by tween

So six different fur patterns and four different eye colours make each Furby unique? You'd better be quick if you want to own one of only 24 Furbies up for sale!

How about a little help?

The *hard word* would like to thank all the readers who've responded with examples of outrageous ads, promotions and products. Thanks to M Hynoski, D Doyle, M Peck, G Gillis, L Laing and A McGregor-Browning for their contributions to this month's *The hard word*. Please keep sending them in.

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